UNIVERSITY OF SOUTHAMPTON

CHILDHOOD BEHAVIOUR PROBLEMS IN URBAN SUDAN

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ABSTRACT

FACULTY OF SOCIAL SCIENCES
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Exploring the role of culture in human development and psychopathology, the present thesis examined the relationship between Sudanese children's behaviour problems and their socio-cultural context. This involved two stages. First, a qualitative investigation into the Sudanese adults' views of normal and abnormal child development was undertaken. There was unanimity that religious and cultural beliefs mediate concepts of normal and abnormal development and intercede patterns of child-care. In the second stage a larger quantitative study was conducted with the aim of developing an instrument that would provide a valid and reliable measure to identify the children's behavioural deviance in the Sudanese context. Sudanese parents and teachers completed behaviour rating scales on a stratified sample of 300 children. These instruments were based on Conners' original questionnaires and were adapted to include items thought to be relevant to Sudanese culture. Following item analysis and exclusion, the reliability, factor structure and internal consistency of a 34 item teacher questionnaire and a 64 item parent questionnaire were explored. Both instruments produced an intuitively appealing and reliable factor structure. As far as linguistic and conceptual equivalence with previous studies in different cultures was concerned it appeared that the Sudanese teachers' views of problems mirrored their western counterparts more closely than did the parents. As with studies in other countries teachers ratings produced a clear distinction between externalising and internalising problems and within these bands, a distinction between hyperactivity and conduct problems and between anxiety and sadness/depression. However, the structure of parents' ratings did not produce such clear cut distinctions. For instance, there were no clear conduct problem or hyperactivity factors. In line with an ecological approach this thesis also examined the structural socio-demographic aspects and their effect on family structure, parenting, and patterns of child behaviour problems. It was shown that within these interconnections religious and cultural factors mediated a range of life styles and patterns of child-care rendering them distinguishable from Western models. However, some factors such as family structure and levels of breast-feeding and social status were not predicted by any cultural or structural variables. It was suggested that the overwhelming popularity of these factors across social groupings led them to be poor discriminator. In examining the relationship between the structural variables and children's behaviour problems, there were several findings that greatly departed from Western ones. For example (i) big family size was not related to behaviour problems, (ii) lower class families were not more likely to produce troubled children than high class families, (iii) and more significantly, there were marked effects of religion on childhood behaviour problems. However, other findings such as the positive effect of grandparents' participation in family processes, the role of gender in childhood behaviour problems, and the negative outcome of corporal punishment were consistent with Western literature. A most consistent finding across the thesis was the effect of religion on concepts of development, ecology of child-care, and patterns of behaviour problems and this marked a fundamental difference from Western models. The theoretical and practical implications of this theme are discussed in relation to child mental heath in the Sudan.

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CHAPTER ONE

GENERAL INTRODUCTION

This chapter is intended to provide some essential background information about this thesis. This includes primarily an idea about the perception of behaviour problems, the main approaches employed in investigating childhood psychopathology, and a broad definition of childhood behaviour problems. It was also felt important to familiarise the reader with the general characteristics of the country where the study was carried out. In the final section I will highlight the hypotheses, aims, and rationale of this thesis.

1.1. Cultural Perception of Behaviour Problems

Over the past few decades psychologists have developed increased interest in the study of culture and its influence on human development and psychopathology. Special attention has been drawn towards the significance and consequences of behaviour problems perceived within their cultural context. However, two contrasting conceptual positions are believed to influence the perceptions of behaviour problem and direct research in this area. The *Culture-specific* position which professes that conceptualisation, recognition, and treatment of psychopathology is primarily rooted in the belief systems of a given culture. On the other hand, *Universalism* poses that there are certain features intrinsic to psychopathology which are invariant across cultures and which render it recognisable within any cultural context---that is psychopathology is universal (Yau-Faiho, 1980).

The present thesis adhered to the former position because although it was felt that virtually all types of behaviour problems are found across cultures, their specific incidence and perceptions may vary considerably. Culture does not only define the situation that elicits certain behaviour problems, but also determines the degree to which there may be viewed as abnormal (see Yule, 1981; Al-Issa, 1982). In addition, the cultural theory of personality and psychopathology suggests that since the cultural world precedes the birth of the individual, culture will pattern the individual's development and his psychological makeup (Lewis-Fernandez & Kleinman, 1994).

1.2. Main approaches to investigating childhood psychopathology

It is believed that progress in investigating childhood paychopathology depends on well developed, acceptable, and applicable approaches to measuring these disorders. Two main theoretical models have emerged.

1.2.1. The conceptual-diagnostic Model

This is a model whereby subcategories of emotional and behavioural problems are tied closely to the conceptual nature of psychiatric illness and diagnostic entities (Boyle & Jones, 1985). This model proceeds by the delineation of clinical disorders in a descriptive sense, and the diagnostic process thus consists of determining whether a child conforms to a particular description or not (Angold, 1989). Intensive clinical interviews are the main diagnostic tools for this model. This model has been criticised as being time-consuming, expensive, poorly delineated and unreliable (Achenbach & Edelbrock, 1978).

1.2. 2. The continuous-empirical Model

This model applies factor analyses and related statistical techniques to lists of problem behaviours to derive syndromes that are scored on an intensity continuum (Boyle & Jones, 1985). This means that psychopathology is defined in terms of quantitative deviations from empirically determined population means. Scales established in this model can offer symptom counts, overall disturbance scores and sometimes cluster-analytically derived diagnostic groupings (Angold, 1989). Measures of this tradition are typically questionnaires for completion by parents, teachers, or the children themselves (Achenbach & Edelbrock, 1978). Extensive population norms may be available, and one strength of such measures is that an individual child's performance can be referenced to such norms (Angold, 1989). This approach has been criticised on the ground that what it gains in reliability it sacrifices in meaningfulness (Boyle & Jones, 1985).

The present thesis adhered to the latter model because the main study undertaken was epidemiological in nature. Rating scales[1] and factor analyses, as the principal measurement tools of this model, facilitate the identification of structures of childhood behaviour problems in the Sudan, which is a central aim of the current study. This model also offers the possibility of comparing patterns of childhood behaviour problems of Sudanese children with those obtained in other studies in different cultural settings. Moreover, interviews are more time-consuming than rating scales and often necessitate the use of highly trained interviewers that are beyond the limits of the present study.

1.3. Definition of Emotional and Behavioural Problems

Although it can be said that most children experience some sort of an emotional or a behavioural difficulty at some point in their development, which seems normal, profound difficulties are considered pathological. Several definitions of emotional and behavioural problems have been suggested. According to the Department For Education (1993), emotional and behavioural difficulties range in type from socially intrusive (externalising) to

[1] A brief review of some popular rating scales and their characteristics will follow in chapter four.

emotionally and socially withdrawn (internalising) disorders. They may manifest themselves in many different forms and at different levels of severity. They may become apparent through withdrawn, depressive, aggressive or self-injurious tendencies. They may have single or a number of causes, and may be associated with school or family environments or physical or sensory impairments. Children's emotional and behavioural impairments may be evident at the personal, social, learning, and skills levels. Whether or not a child is judged to have emotional and behavioural difficulties will depend on the nature, frequency, persistence, severity or abnormality of the behaviour compared to normal expectations for a child of the concerned (DFE., UK, 1993).

The current literature on children's problems centres primarily on two broad-based categories: emotional (internalising) and behavioural (externalising) problems (Achenbach & Edelbrock, 1983; Achenbach & McConaughy, 1987). Although behaviour problems have been grouped into internalising or externalising in most studies, still a number of children may display a mixture of difficulties. Internalising problems include loneliness, social withdrawn, anxiety, depression, or emotional problems. Externalising problems include aggression, hyperactivity, bullying, lying or stealing (Achenbach & Edelbrock, 1983).

Rutter, Tizard, & Whitmore, (1970) classified the problems into two groups in the Children's Behaviour Questionnaire (CBQ): neurotic (internalising) and social (externalising). The 'neurotic' behaviours were 'often worries about many things', often appears miserable, unhappy, tearful or distressed', 'tends to be fearful or afraid of new things or new situations', and 'has had tears on arrival at school or has refused to come into the building this year'. The 'antisocial' behaviour were 'often destroys own or others' belonging,' 'frequently fights with other children,' is often disobedient,' 'often tells lies', 'has stolen things on one or more occasions', and 'bullies other children'. A detailed discussion of this point will appear later in chapters four and six. Richman, Stevenson, & Graham, (1982) defined behavioural problems as actions that would cause significant social or psychological disability to the others and that would cause concern to an experienced professional in the field. This means that the behaviour in concern falls outside the normal range.

It is so difficult to arrive at a reliable definition because an emotional or behavioural problem is not a thing that exists outside a social context, but a label assigned according to cultural rules (Burbach, 1981). An emotional or behavioural problem is whatever an authority in a given culture feels is intolerable. Typically, it is behaviour that is perceived to threaten the stability, security, or values of that society (Rhodes & Paul, 1978). Divisions in world views or conceptual models are one more factor adding to the problems of definition. Moreover, problems are made by the differing intentions or aims of definition, by practical obstacles in measuring behaviours and emotions, by the range and variability of

normal and abnormal behaviour, by the overlapping of emotional or behavioural problems with others disabilities, by the transitory nature of many problems during human development, and by the drawbacks inherent in describing and classifying deviance. (Angold, 1989; Achenbach & Edelbrock, 1983; Burbach, 1981; Rutter, Tizard, & Whitmore, 1970; .Rhodes & Paul, 1978)

Despite the fact that many definitions of emotional or behavioural problems have been constructed during the past few decades none has resolved the problems of terminology, clarity, and usefulness (Angold, 1989). However, In 1991, the Mental Health Special Education (MHSE) Coalition in the USA suggested a more inclusive definition of emotional or behavioural disorders. It reads as follows:

1- The term emotional /behavioural disorder means disability characterised by emotional or behavioural responses in school programmes so different from appropriate age, cultural, or ethnic norms that they adversely affect educational performance, including academic, social, vocational or personal skills, and which (a) is more than a temporary, expected response to stressful events in the environment;(b) is consistently exhibited in two different setting, at least one of which is school-related; and (c) persist despite individualised interventions within the education programme, unless, in the judgement of the team, the child's or youth's history indicates that such interventions would not be effective.

2- Emotional or behavioural disorders can co-exist with other disabilities.

3-This category may include children or youths with schizophrenic disorders, affective disorders, anxiety disorders, or other sustained disturbances of conduct or adjustment when they adversely affect educational performance in accordance with section 1. (source: MHSE Coalition, 1991)

In the International Classification of Diseases (ICD) 10 th edition, the term 'disorder' is used throughout the classification, so as to avoid even greater problems related to the use of terms such as 'disease' and 'illness'. 'Disorder' is not a precise term, but it is used to indicate the existence of clinically recognisable set of behaviours associated in most cases with distress and with interference with personal functions (International Classification of Diseases, 1992). In the present thesis, the term 'emotional and/or behavioural problems' is used interchangeably with 'emotional or behavioural disorders'.

1.4. Location and demographic characteristics of the country

1.4.1. Location

The Sudan is a vast country in the heart of Africa, lying between latitude 4 and 22 north, longitude 22 and 33 East. It is one of the largest ten countries in the world, covering an area of nearly one million square miles. The Sudan occupies 1.7 per cent of the world's land surface and 8.3 of the African continent and it is ten times the size of the UK (Ministry

of Information and Culture in Khartoum, 1972). It is the largest country in Africa. The Sudan shares frontiers with eight nations: Egypt, Libya, Chad, The Central African Republic, Congo, Uganda, Kenya and Ethiopia. The Sudan has also about 716 kilometres of coastline along the red sea.

1.4.2. Population

According to the third national population census (1983), the population of the Sudan is 21.6 millions, 69% of people live in settled rural communities, 20% of the population live in urban settings, and 11% of them are nomads. The annual population growth rate is 2.8 %. Sudan is a country of young people, over 57 % of the population are under 20 years, and 73 % under 30 years. Only 1% are more than 70 years old. Projections suggest that the Sudanese urban population will constitute 42.5% of the total by the turn of this century (EL. Farouk 1991). The most important factors responsible for the rapid rate of growth of the urban centres in the country are population growth and rural-urban migration. Sudan hosts more than 1.2 million refugees from neighbouring countries. The heart of the country in terms of population lies at the confluence of the Blue and White Nile. The three largest cities of Khartoum (the capital) are situated there and numerous small agricultural towns have developed within a relatively small area. Just south of Khartoum the wedge of land between the two rivers known as El Gezira has been developed into a vast irrigation project for commercial and subsistence economy. El Gezira is hosted in the Central region and constitutes the most affluent and organised agricultural area in the Sudan.

1.4.3. Religion & Language

Most of the population in the northern provinces are Arabs or are arabized, unified by Islam and the Arabic language. The southern region is mainly dominated by the Nilotic and Negroid groups professing different systems of belief and speaking different languages. Islam is the dominant religion in Sudan. It provides a common cultural basis and unifies social and political attitudes. Statistics indicate that the majority of people in the south of Sudan are non-religious, whereas Muslims and Christians rank second and third according to figures issued by the World Council of Churches. Islam is influential in Southern towns whereas Christianity is influential in rural areas (Suleiman, 1991).

1.4.4. The Economy

The Sudanese economy depends almost wholly upon agricultural and pastoral products. This sector of the economy contributes 95% of all exports and over 50% of government reserves. A great majority of the population depends on agricultural cultivation for their livelihood, while the rest of the population depends on animal wealth. Few industries have been established as industrial development is still in its infancy.

1.4.5. Occupations

Because there is no sharp class distinction between people in the Sudan, the issue of social stratification remains a problem for researchers. In the present study we have adopted the view that social strata can be identified as: some people in the upper class and these are mostly businessmen; the middle class includes the government officials, professionals, and merchants; and the lower class includes the low income labourers who are usually uneducated. This information about social class and strata is only true on the superficial level. On another level, the Sudanese society is governed by tribal solidarity and inter familial relations which in many ways cross social barriers. For this reason we have adopted an empirical application to determine indicators of social class. Occupation was chosen as an index of SES to minimise the amount of personal information requested from the respondents. Moreover, Hollingshead (1975) found occupation to be the best single index of his highly detailed social class stratification (Achenbach & Edelbrock, 1981).

1.4.6. Family Structure

In the Sudan, families traditionally consist of 3 or more generations and their siblings living together and sharing domestic duties and economic responsibilities. This type of social structure is believed to be embedded in the wider tribal and cultural ideals. Although variations of this extended family structure still dominate social life in rural areas, in the city a large proportion of families are now based on the nuclear unit common in Western societies. Abdelrahman and Morgan (1987) have reported that approximately 50% of families living in Khartoum between 1945 and 1975 adopted a nuclear family type; of the remaining extended families, 30% lived with the mother's family and 20% lived with the father's family. The influence of Western values through the media and the call for economic development and industrialisation, associated with the emergence of Western political and social organisation, have produced some attitude change that led many couples to re-evaluate the value of the traditional extended family. The process of worker migration associated with urbanisation and industrialisation ultimately also leads to a distancing of inter-familial ties.

1.4. 7. Fertility

In the Sudan, early and universal marriage has traditionally led to a women's primary role being defined as that of reproduction. A newly married couple is usually subjected to strong pressures for "the family to become three". This social pressure does not stop after the first child is born. Any delay in conception is viewed with suspicion about the woman's ability to conceive and may cause the husband to look for another wife. An attempt to regulate fertility for economic reasons stands for an expression of lack of faith in God, the Provider. In rural and agricultural communities, a large family size is considered

prestigious. Having many sons will add to social status and tribal influence. In this cultural context one would expect fertility to be very high.

1.4. 8. Health Conditions

The Sudan still experiences a relatively high incidence of disease. The main determinants of morbidity and mortality among children are diseases of the respiratory system, and diarrhoea and malnutrition diseases. Diarrhoea disease, in particular, is reported to be the main cause of ill health and death among children in the Sudan and one which dominates areas where sanitation is poor and knowledge of hygiene is low. The Sudan Family Planning Association was established in 1969 as part of the maternity and child health service. Most of the clinics are based in government health centres and most are located in urban settings. The government of the Sudan is currently trying to improve this situation by placing more emphasis on the development of primary health care. This is based on an integrated approach to health that includes not only the provision of basic preventive and curative services but also food production, cultivation, and water and sanitation.

1.4. 9. Education

Although there is a considerable literacy in urban areas, the general rate of illiteracy throughout the country is estimated to be around 65%. Due to colonisation and the cultural influence of the West, modern systems of education have also been widely established. Almost every region now has its own institutions for general and higher education. The government provides free elementary education from the ages of 7 to 12 years, intermediate from 13 to 15 and secondary from 16 to 18. In order to reduce the illiteracy rate, the government decided to achieve universal primary education by the year 1998. It is helpful to provide a brief sketch of Sudanese pre-schooling institutions. These serve roughly 60 % of the population, they involve 2 or 3 years of attendance prior to a child's entry into primary schooling at 6 or 7 years old. Nurseries and Khalwas are two different types of pre-schooling institutions. Nurseries are mainly established in response to modern trends of education whereas Khalwa is the basic unit for traditional religious education. They are existing side by side in some urban and rural sectors.

Nurseries refer to public institutions controlled by the educational authority of the government. The nursery emphasises preparation for primary school with some activities such as playing and gardening. Khalwa was dominant in Sudan before the introduction of modern system of education. It, however, still retains some of its educational and religious functions. The curriculum of Khalwa varies across teachers and religious education leaders to some extent, but usually includes a large amount of memorisation and group recitation of verses of the Qur'an, along with some teaching of the Arabic language and basic numeracy skills.

1.5. Conclusion

1.5.1. Hypotheses and aims of the present thesis

Following the realisation of the importance of the cultural theme in perceiving childhood behaviour problems, the sociocultural orientation of the Sudanese society is expected to influence this perception. Moreover, the development of behaviour problems may result as a deviation from the concepts and practices of normal development in the Sudan. In this connection, concepts and practices of human development in the Sudan may differ from those in the West. Therefore, structure and prevalence of childhood problems in the Sudan may not be similar to those in the West. There may also implicitly exist certain concepts or practices that can enhance the psychological well-being of the individual and hence contribute to positive mental health. As well, a factor that has a protective function given the beliefs operating in one context, might constitute a risk in another context. In keeping with this approach, the present thesis aims at (i) surveying the Sudanese people's concepts of normal and abnormal human development, and (ii) examining the role of specific cultural, familial, and religious, factors in normal and abnormal social and emotional development of Sudanese children. A third aim was identifying the structure of childhood behaviour problems prevalent among the Sudanese children. This would require the development of an assessment tool sensitive to the Sudanese culture to produce an instrument capable of accurately assessing children's behaviour problems in the Sudan, and to make possible the comparison of certain features of Sudanese adults' ratings with those made by adults in other cultural settings. A final aim of the present study was to explore the relationship between Sudanese teacher and parent ratings.

1.5. 2. Rationale and Significance of the present thesis

(i) Assessment and identification of childhood behaviour problems will help in taking preventive measures in the social and environmental spheres and reducing the incidence of child psychiatric disorders in the Sudan.

(ii) The realisation of the existence of cultural differences and the role of the culture-specific factors in the development of childhood behaviour problems patterns will encourage Sudanese experts to develop their own instruments of clinical assessment and treatment.

CHAPTER TWO

DEVELOPMENT, CULTURE, AND PSYCHOPATHOLOGY

2.1 Introduction

Over the past twenty years, there has been an increasing interest in cultural differences in normal and abnormal social and emotional development of children. It is argued that socio-emotional functioning of children tends to be influenced by cultural, familial, and social values. Research findings (e.g., Garcia Colls, 1990) have shown that sources of influences such as culture, health status, SES, family structure, will suggest:
(i) alternative or different "normal" developmental pathways,
(ii) deficits or deviations from the normal development,
(iii) and perhaps similar developmental outcomes.
This might indicate the importance of examining the role of cultural orientation when dealing with human development and psychopathology. The uniqueness of cultural orientation and practices of a certain society or community might have shaped norms of behaviour, concepts of development, and ideas of abnormality in a way that characterise that particular society, retaining its inherent way of life, and maintaining its distinctive features. Although some theorists (e.g., Piaget, Kohlberg) claim universal applicability of their theories, other investigators have sensed the importance of examining the total cultural and social field in which the individual is embedded (Mischel, 1980; Triandis & Brislin, 1984; Weisz &Weiss, 1991). In this respect, increased attention has been given to the relationship between individual adjustment and the nature and kind of the social environment that encompasses the individual`s functioning (Holahan & Moos, 1982). So the study of these cultural, social and familial factors might have important implications not only for the concepts of development and childhood problems adopted by particular communities but also for mental health practices of those communities. Emphasising this idea, Hobbs (1982) maintained that mental illness is not the private misery of an individual, but is intrinsically related to the breakdown of natural social support resources in the individual`s life.

In addition, some psychologists have recently called for a break in the artificial boundaries between abnormal, developmental, and social branches of psychology (Kaplan,1987). It makes no sense, as they maintain, to speak of personality development outside of cultural context. This idea of the cultural framework and its impact on normal and abnormal socio-emotional development is now a major concern for developmentalists and

mental health personnel in some developing countries (Giel & Harding, 1976; Harding, Climent, Giel, Ibrahim, Srinivasa, Suleiman & Wig, 1983). So, the present thesis will be examining these issues from phenomenologically and culturally contextualized standpoints.

2.2 Critical Study of Western Developmental Psychology

Although developmental psychology is dealing with the study of age in relation to change, it is rather concerned with the ultimate ends of human existence and notions of perfection (Kaplan, 1983). Moreover, developmental psychology tends to express ideas about being and reality and embodies ideas about the values of human actions and desired ends of development. Variations in these ideas and concepts would expectedly result in the emergence of different approaches to investigating human development. Theories of development are believed to be reflections of differing conceptions of human nature (Glick,1983). These conceptions, of course, have evolved from philosophical as well as cultural paradigms. In this context, Western theories of development retain the features of their culture and thought (Kaplan, 1983). Youniss (1983) postulates that proper understanding of developmental psychologies will reveal that they are among those powerful manifestos for Western philosophical and moral values. Although most Western developmental psychologists consider themselves objective scientists operating in a value-free way not reflecting any sort of ideology, many more, have argued that theories of development embody more than scientific speculations (Crain, 1985). They generally reflect the features of Western thinking, as the criterion for knowledge and science has only been a sensory perceptual one (Riegel, 1973).

Theories of modern developmental psychology, however, have been challenged by some theorists on the basis of their lack of comprehensive understanding of the processes and scope of human development (Glick, 1983). In this manner, Kaplan (1983) assumed that:

> "Development is a normative notion- a movement towards perfection and that the job of a developmental approach is to facilitate the movement towards perfection in domains of actions, in the interpersonal relations and in the transformation of the self".

Kaplan here seems to be calling for a more comprehensive approach that provides a hierarchical model of development in every aspect of the individual`s life. This, according to him, may suggest the need for a reorientation of developmental psychology in order to make human development per se the central concern of all psychologists and recognise those values inherently implied in theories of development in different cultural settings.

However, recent research on child development and psychopatholgy has heard some

eminent voices (e.g., Jahoda, 1973; Triandis & Brislin, 1984; Wagner, 1986; Weisz &Weiss, 1991) calling for more international openness and collaboration to advance the welfare of children. For instance, Jahoda (1973) raised the point that sufficient data are now available to demonstrate the existence of cultural variations not only in social aspects of behaviour like values and attitudes, but also in fundamental ones, such as perception, remembering, and cognitive development. This issue, as Jahoda postulates, highlights the lesson that if psychology is aiming at universal generalisations, it should attempt to examine the widest possible range of these cultural variations. Jahoda suggested that this issue ought to make us cautious in claiming universality for a psychological phenomenon on the basis of solely Euramerican work.

Similarly, Wagner (1986) maintains that for essential improvements to take place in the interface between Western researchers and Third World investigators and policy makers, openness to new ideas and ways of investigation must be ensured. In particular, as he affirmed, Western social scientists might attempt to go beyond the Western paradigms typically characterising research in child development. Wagner went on to suggest that mutual interest in child development research between Western and non-Western societies can be achieved only by the active participation of social scientists committed to and open to improving the welfare of children through a comparative and international perspective.

Moreover, Weisz &Weiss, (1991) point out that the study of child psychopathology is actually composed of two distinct phenomena: the behaviour of children and the responses of adults to that behaviour. They argue that while descriptive epidemiologic research can address the first phenomenon, such research needs to be complemented by research on the second phenomenon to help us understand the significance and consequences of various forms of child behaviour within their social and cultural context.

More crucially, Triandis & Brislin (1984) argue that definitions of psychology usually include the phrase, "the scientific study of human behaviour" which implies that human behaviour in all parts of the world must be investigated, not just those aspects of behaviour conveniently available or culture-related to investigators in highly industrialised nations (Triandis, & Brislin, 1984). According to this position, ideally, the various aspects of people's culture influence on behaviour should be carefully identified and given the opportunity to relate to theoretical issues in global psychological theory. These in turn will contribute and may improve the global psychological theory itself (Marsella & Kameoka, 1989). In this connection, Liddell, Kvalsvig, Shababala, & Masilela, (1991) argue that the substantial evidence that rapid processes of change in living patterns, socio-political circumstances, and the educational achievement of parents contribute significantly to children's development and prospects, should support the view that socio-historical perspectives on children's development in non-Western cultures be considered an essential component of indigenous developmental psychology.

So, the role of developmental psychologists in non-Western countries, such as the Sudan, might be seen as one of providing contemporary perspectives on children of cultures on transition, with full attention being taken of the degree to which contemporary patterns of childrearing, socialisation, and psychopathology differ or resemble those described in Western societies and how more recent socio-political developments may have contributed to either change or stability.

2.3 The impact of Culture on Human Development

Exploration of the belief system of a society or a culture seems to be crucial to a better understanding of human development and psychopathology. These beliefs and unspoken values will clearly influence the parents` conceptualisations and practices toward their children. Of course, this is of special significance in understanding how families set up the sociocultural environment within which children function (Stratton, 1990). Furthermore, Wertsch & Youniss (1988) have examined some of the ways in which sociohistorical contexts influence the formulation of issues in developmental psychology. They felt that it is important to examine the social, political, and historical forces of culture when trying to understand the discipline; they emphasised the role of 'cultural reality' when investigating human psychological functioning. To illustrate this they examined, for example, the concept of "child saving" showing that it originated in certain religious and economic forces during certain times in Western cultures.

One pervasive force in a given culture seems to be its religious and/or ideological values. Although psychologists, psychiatrists, and social scientists, in general, tend to avoid the investigation of the effect of religious values on contemporary western man, a few of them have come to realise the importance of the religious experience and its impact on human behaviour (e.g., Allport, 1953; Badri, 1979; Szasz, 1972; Brown & Gary, 1991; Neeleman & Persaud, 1995). In this endeavour Szasz has the following to say:

> "If we sincerely desire a scientifically respectable psychosocial theory of man, we shall have to pay far more attention to religious values and rules than has been our custom before".

So religious values and practices might have some sort of influence upon the conception of man and his development.

2.4. Non-Western Developmental Approaches

In his attempt to answer the question of whether a non-western developmental psychology is possible, Reigel states that any distinct group would have to construct its own view and interpretation of life and conception of man and his development (Reigel,

1973). A long with this view, genuine investigation in other non-western culture might add to our understanding of developmental processes.

2.4.1. An Islamic Approach to Development

Non-western developmental approaches might have different conceptions and presuppositions of man and human development. For instance Al-Gazali, a 12th century Muslim scholar, had maintained a quite different stand in dealing with the conception of human development, (Siddik, 1985). He pointed out that human nature is naturally and essentially good capable of development in a continuous process to achieve higher levels of human perfection-- personally, socially, and spiritually. In this sense, development is seen as being at the heart of human behaviour. In fact, the Islamic concept of "fitra"[1] is the bedrock of Al-Gazali's conception.

2.4. 1.1. Islamic Conception of Development

Islam has always been described as more than a religion; as a complete and comprehensive way of living. Its ideas and practices not only influence the individual`s spiritual life but also his cognitive, emotional, social, and economic activities. Abdal Ati (1979) has explained how religious inspiration, law, and social order have shaped ideas about family processes and human development in Muslim communities. Every model carries with it an implicit set of criteria to define and assess human behaviour. In this section I shall examine notions of development, strategies of child-care, and their underlying values and belief systems as conceived from the Islamic perspective. Before this it is important to have an idea about the basic concepts of this approach.

2.4. 1. 2. Islamic Conception of Social Phenomena

The Islamic conception of social phenomena emphasises the justifiability, necessity, and desirability of placing the Divine at the centre of natural and social phenomena. Clearly, this position differs from the materialistic and naturalistic theories that assume the non-existence of God and therefore they adopt the principle of self-sufficiency of this world, i.e. the principle that phenomena of this world, whether they be social, or otherwise, can be sufficiently explained with the help of laws pertaining to it (Idris, 1977). The perception of social phenomena is then connected to one`s views about the nature of reality. A materialist who believes that there is ultimately nothing in the world except matter and its significance will not include in such actions anything of a spiritual dimension or the value of good. This assumption has unfortunately been identified with the scientific method as such, so that any

[1] Fitra is the Islamic concept of human nature which relates to the individual's innate reality to remain pure and aspire for the Divine and worshiping.

reference to God in the explanation of phenomena is immediately ruled out as unscientific (Idris, 1977). The epistemological question of what constitutes proper knowledge and how it should be arrived at and conveyed, remains to be answered.

2.4.1.3. The Islamic Concept of "*Fitra* " (good nature)

Islamic scholars believe that man is created with a good nature, the essence of which is the acknowledgement that he or she is the servant of only One Creator. This belief forms the meaning of man's humanity and it is the lifeblood of everything that is good in him: sound reasoning, moral sense, aesthetic taste, and brotherly feeling. The natural state of man is therefore one of internal happiness and peace of mind which comes as a result of a natural acknowledgement of his servitude and submission to God (Mohammed, 1995).

Man is born in a state of "Fitra", but the development or distortion of this state depends largely on the environment in which he lives. Of course, family and society are the most important constituents of this environment. If these institutions are formed on the basis of and conform to the Islamic values, a better chance of healthy development will likely be available. Consideration and handling of personal attributes, individual differences, or any other constitutional factors are also influenced by Islamic views. Having considered the basic idea of the Islamic conception of the social order, it is of interest to examine the characteristics and functions of the family from that perspective.

2.4.1.4. The Family in Islam

2.4.1.4.1. Basic Principles

The family in Islam is a Divinely inspired institution that is the result of marriage between partners who share common views about life and want to fulfil their destiny as God's vicegerents. That is to lead their lives in a way that facilitates and promotes their "fitras". The family is then regarded as a basic religious and social institution. So the Islamic concept of development can be described as social and communal i.e. it is impossible to conceive of development as an individual thing. In contrast, the concept of family in the West does not seem to receive the same emphasis. The economic responsibility rests with the husband while that of proper education, training, rearing of the children and the wider looking after the home rests with the wife.

2.4.1.4.2. Objectives and Functions

In his study about the family in Islam, Ahmad (1976) has outlined its objectives and functions as follows:

(i) Psycho-emotional Stability, Love, and Kindness

One aim of marriage is to attain psychological, emotional, and spiritual companionship. It is believed that relationship between family members, and most importantly between husband

and wife, is not merely an utilitarian one. It is a spiritual relationship that generates and maintains love, kindness, mercy, compassion, and mutual confidence.

(ii) Socialisation and Value-orientation

Child-rearing and upbringing, their education orientation, personality development and gradual initiation into religion and culture are a major responsibility of the family.

(iii) Social and Economic Security

The family is an integral part of the Islamic system of socio-economic security. Rights do not relate solely to moral, cultural, and ideological aspects; they include the economic and social rights of the family members. It is therefore a means of psycho-social security.

(iv) It Provides Satisfaction for Attachment and Emotional needs

The members of the family remain integrated within it. The aged do not go to old people's homes. Orphans are not thrown into orphanages. The poor and unemployed members are not left to survive on public assistance. Catering for these economic needs also provides emotional security for family members.

(v) It Facilitates Social Cohesion

Marriage is seen as a bridge between different families, tribes, and communities. So it widens the horizons of the family and produces social cohesion in society. Generally speaking, parental behaviour and attitudes are believed to be directly related to systems of belief. These beliefs and notions are then practically manifested in parental strategies to rear, train, discipline and socialise children. Likewise, the Islamic belief systems that have been discussed will be expected to influence parental behaviour and strategies in dealing with their children. For example, parental authority and rearing practices such as breast-feeding or weaning are clearly stated by religious commands.

2.5. The Importance of Family Studies

It is generally agreed that it is the family that mediates cultural and social values and presents them to the child. Within a given culture tasks of socialisation, transmission of rules, roles, and norms of the culture is largely left to the family. Parents translate the symbols and signs of their culture so that the roles about gender, childhood, affection, responsibility, and personal rights are always the concerns of the family (Vetere & Gale, 1987).

Although there is substantial empirical research that deals with the ways that cultural values affect children within families, there has been little co-ordinated and systematic study of the family within developmental psychology (Stratton, 1990). This might suggest that

the transmission of cultural influence to the child has not received adequate attention. Furthermore, Vetere & Gale (1987) have claimed that the family is actually neglected in both academic and applied psychology. They conveyed their astonishment that psychologists continue to ignore the family not only as a source of human experience but as a context for the development of psychological research and theory. In contrast to this situation, other cultures (e.g., Eastern) have placed considerable attention to the role, structure, and function of family processes. Recent research has suggested that close examination of the family as a unit of analysis encompassing dynamic processes as a function of different structures, functional arrangements and compositions must be pursued (Garcia Coll, 1990; Vetere & Gale, 1987). However, family environment and its influence on cognitive development, in particular, has received some attention. In this aspect, according to McGillicuddy-De Lisi, Sigel, & Johnson (1979), two main research approaches can be identified. One line of research has related family demographic variables such as spacing and number of children to intellectual outcomes. An example of this is the confluence model suggested by Zajonc & Markus (1975) in which they proposed that each additional child in the family is seen as "diluting" the intellectual environment of the home to a degree depending on the spacing between siblings. The second type of research has concentrated on describing the patterns and processes in the home environment that relate to children's cognitive performance rather than demographic variables as such. The authors have argued that there is a need to investigate specific and observable behaviour patterns in families that vary due to socio-demographic variables.

Investigators believe that it is important to examine the relationship between such conceptual systems and parental teaching strategies in the context of family size and child spacing (Mc Gillicuddy-De Lisi et. al, 1979). While the family environment provides a potent source of support to its members, pathogenic effects are also observed. For example, research findings have shown that a failure of attachment has psychopathological consequences for children (Goodyer, 1990). Rutter (1981), has identified some family variables significantly associated with childhood psychopathology. Moreover, some investigators believe that life events need not be catastrophic in order to be pathogenic but normal life events are sometimes potential contributors to the development of psychiatric conditions (Goodyer, 1990). In this sense family processes seem to be highly crucial. Emphasising the importance of family studies in relation to development and psychopathology, the present study will try to examine these issues.

2.6. Culture-referenced Idea of Abnormality

Ideas of abnormality seem to be closely related to the ideas of development and culture. If notions of development are likely to be shaped by cultural, social and religious orientation of the country in which they exist, abnormal behaviour, in turn, can not be seen or

examined without reference to the normal concept of development in that culture. For instance, Al-Gazali assumed, as the Islamic perspective professes, that absence of spiritual feelings incapacitates the healthy development of a person, and any arrested human development will likely lead to some sort of psychopathology.

So, the idea of abnormality itself is, to a large extent, culturally determined. A number of studies have shown that there is a strong correlation between cultural patterns or values and mental health (Rutter & Garmezy, 1983; Wright, 1987). If this is the case, then the imposition of standards and concepts of certain cultures, or more specifically-Western Models, on other cultures seems to be inappropriate and scientifically unjustifiable. Taking this fact into consideration, the norms, concepts, and values of a specific culture need to be emphasised in order to arrive at a better understanding of abnormal human development and psychopathology in that culture. In support of this view, more recently, (i) epidemiological studies of different cultures and nations are considered scientifically and practically important for examining the whole range of common childhood psychological disorders (Taylor, 1987; Weisz & Weiss, 1991). (ii) Variations in cultural values and practices might lead to the identification of different stress-buffering factors. In terms of developmental psychopathology, this means that the significance, meaning, and the protective value of factors varies as a function of aspects mediating the developmental process (Rutter, 1987). Moreover (iii), Garmezy (1985) has suggested that three sets of variables operate as protective factors for children: personality features such as self-esteem; family cohesion and absence of discord; and the availability of external support systems that reinforce a child's coping efforts. If this is the case, then how important are the relative roles of sociocultural factors and family processes in the Sudanese children's mental health?

In the Sudan, values, norms, traditions, family structure and practices, concepts of development, ideas of normality and abnormality can be understood in the light of cultural and religious tradition. In the light of this cultural and religious orientation, exploration of concepts of development and their impact on childhood psychopathology is a central theme of the present thesis.

CHAPTER THREE

SUDANESE ADULTS' VIEWS OF NORMAL AND ABNORMAL DEVELOPMENT

3.1. Introduction

In the previous chapter it was argued that parent's judgements about their children's behaviour will be mediated by their views of what constitutes abnormal and normal development. In turn, these conceptions are likely to be bounded by world views held in different cultures, their goals and ideals. This means certain behaviours which are acceptable in one culture will be unacceptable in others. This may mean that behaviours that are deemed not to be a serious problem in one culture will be seen as positively harmful to the child in another. On the other hand, behaviours that are deemed to be a problem in two cultures will be regarded in one as more serious than in another. Adult's in different cultures might also differ in the factors that they deem to be responsible for the development of problems. While in themselves these perceptions and their origins are of academic interest, an understanding of them is also required before parent's judgements about behaviour can be properly interpreted. In this regard, investigators and developmental theorists (e.g., Stratton, 1990; Wertsch & Youniss, 1988) have examined some of the ways in which socio-historical contexts influence the formulation of issues in developmental psychology. They felt that it is important to examine the social, political, religious, and historical forces of culture when trying to understand the discipline. For instance, parental beliefs may be organised in terms of smaller subsystems that are interrelated within a larger, more global system (Mc Gillicuddy, Sigel, & Johnson, 1979; Wertsch & Youniss, 1987).

Having recognised the link between cultural ideals and expectations and perceptions of disorder it was deemed necessary to provide the readers with an opportunity to familiarise themselves with the sorts of views held by adults living in the urban centres of the Sudan about their children's development and behaviour. This was the aim of the present chapter.

Significant adult figures parents (mothers and fathers), doctors and religious sufis in Sudanese society were interviewed about children and development. The main purpose of this was to develop an understanding of the Sudanese attitudes to development. In particular from where it does originate, which factors affect the developmental processes and what are the norms that determine ideas of behavioural abnormality. In other words, the interviews investigated the role of culture and religion in determining ideas about normal and abnormal behaviour of children in the Sudan. The aim was not to provide a representative study of

attitudes but to sample the diversity of views present in the Sudan and to establish areas of agreement and disagreement that might exist between different sectors of the adult community.

3.2. Method

3.2.1. Subjects:

16 adults (4 mothers and 4 fathers, 4 clinical psychologists, and 4 Sufi Sheikhs - traditional education & religion leaders) from both Khartoum and Central regions were interviewed. These categories represent those people who are involved in practice and concerned about the concepts of development and behaviour problems. The Sufis and the clinical psychologists were chosen to represent the two poles of the modernity and traditionality dimensions of beliefs. The Sufis were expected to hold extremely traditional views by which Islam and the Quran are thought to be a literal guide to parenting. The clinical psychologists would have been educated largely along Western lines and would therefore be expected to hold a non-traditional and more child centred view. Some details of the participants are listed below.

Fathers: Two of the fathers had a university education, one had an intermediate level and the fourth was uneducated.

Mothers: Three of the mothers were educated. Of the educated mothers one was employed as a teacher, one as a government official and the third was a housewife. These mothers were not married to the men participating in this study.

Clinicians: The clinicians in the present study were clinically trained psychologists and were graduates of Sudanese Universities. They had all completed a supervised internship in the psychiatric departments in the Sudanese hospitals and passed their masters' degree or postgraduate diploma in clinical psychology at the University of Khartoum. All of them worked for the government in public hospitals and health centres.

Sufis: A Sufi is a religious person well known for his influence on traditional religious education and has a leading social role in his area. Usually a Sufi has his own confined place known as 'Maseed' where he practices his spiritual activities and has his school for teaching children Qur'an and the basics of Islam. Inside the Maseed all people are involved in religious activities and learning. Children also reside in this Maseed to be trained and disciplined in its spiritual atmosphere. In particular children get up early in the morning to join their classes for reading, memorising, and reciting Qur'an and after a short break they

are ready for Arabic lessons. This also in order to learn simple arithmetic and listening to religious stories in addition to supervised playing and other social activities. After having some rest at the Maseed, children are encouraged to join the elders in farming and cultivating the Maseed owned land. In the evening Qur'an classes are resumed. Meals and classes are scheduled around the prayer times. The Sufi (senior Murshid[1]) is assisted by several junior Murshids in teaching and administrative tasks. The general atmosphere conveys respect, kindness and love. The senior Murshid appears every morning in the maseed's yard to inspect, direct, and advice junior Murshids and pupils. The senior Murshid is regarded by children and others as an example for wisdom, piety, integrity, success, and social recognition.

The most famous Sufis in Khartoum and Central regions who are well known for their religious and traditional educational influence were selected for the study. The interviews with the Sufi's in many ways took place in a somewhat ceremonial atmosphere. Subject A & B of the Sufis were also parents.

3.2.2. The Interviewing Schedule

The interview was semi-structured and consisted of five sections (see Appendix 1 for more details). In brief, section one inquired about attitudes and concepts of normal development in the Sudan. Section two investigated ideas and notions of abnormal development. Section three was concerned with family structure and its links with development while the fourth section inquired about sex differences and their relation with child development and parenting strategies. The last section examined the role of culture and religion in the child`s normal and abnormal development.

3.2.3. Procedure

The interviews were carried out either in the place of residence or the place of work. On entering the interview location, the interviewer explained the general aims of the interview to the subjects who agreed to participate in the study. Two mothers were interviewed at home since they were housewives and had no other work. The other two mothers were interviewed at work, they were both government employees. All fathers were interviewed at homes. All interviews were tape recorded for transcription and analysis.

3.2.4. Data Analysis

The subjects' responses to the questions were submitted to qualitative analysis. Content analysis was used as a sensible method for analysing data because it has the property of

[1] The word Murshid is an Arabic term which means a guide person. It is particularly popular in the field of religious education.

dealing objectively with meaning and conceptualisation. Content analysis is generally defined as any technique for making inferences by objectively identifying specific characteristics of messages (Holsti, 1969). Although content analysis is primarily associated with written communications, it may be used with any form of messages including television and radio programs, speeches, films, and interviews (Shaughnessy & Zechmeister, 1990). There are three steps to follow in conducting research using content analysis. First, the identification of a relevant source; what is relevant depends on the aims of the study and the questions the researcher is raising. However, in the case of interviews the researcher may have some ideas in advance of questions to ask or topics to pursue. So initial or emergent issues will provide some guidance to the categories worth developing in the analysis of data (Dey, 1993). The second step must involve an appropriate sample selection from this source. The goal of sampling is meant to obtain a sample that is representative of all the data of interest or should reflect the issues on which the researcher is seeking evidence. The final step is coding which requires that relevant descriptive categories and appropriate units of measurement be identified. Also what determines a relevant descriptive category is related to the goals of the study. It is known that in many content analytic studies the communication is written. In this case, the units of classification generally include single words, characters, sentences or paragraphs, themes, or particular items (Holsti, 1969). Accordingly, the present analysis will focus on themes as units of classification and will run through two levels: At the first level, recurring themes in the responses of each group to each question will be identified. From these, major themes will be selected. The second level will examine the content, significance, and explore the relationship between these themes. So the analysis will move from descriptive at the first level to an explanatory and interpretative approach at the second one.

3.3. Results

3.3.1. Description of Text and Preliminary Themes:

The aims of this level were to:

(i) characterise the text as accurately as possible.

(ii) describe & differentiate the subtleties of themes.

With these two aims in mind the six areas were surveyed. These were the nature of human development, adjustment and maladjustment, child-care, the family and development, sex differences, culture and religion. The subjects views on each of these will be described.

3.3.1.1. The Sufis' View

3.3.1.1.1. The Nature of Development

Among the Sufis there was unanimity of view on what constituted healthy development. They all agreed that healthy development produces a good person who keeps the remembrance of Allah and effectively interacts with his society. They all mentioned that this goal of development is achieved through the religious (Islamic) way of life . Subject-A was typical of this position.

> "Healthy development means that the child ends up with a well balanced and integrated personality whose ultimate aim is to worship Allah as well as to relate and contribute to his people and society. In our society, this could be achieved mainly through a religious way of life which enhances a person's good human nature- that is his Fitra" (S - A).

This religious way of life was indicated by the Sufis' idea that the parents or the family, in which the child was reared, would have a religious style of living complying to commands related to all aspect of development.

> "A person, or a family, is said to be religious if he performs his religious duties such as prayers, learning and reciting Qur'an, doing good and refraining from bad deeds, and obeying the religious teachings relating to personal, social and public life" (S-B).

Two of the sufis (A, D) added that this religious way of living would help children actualise their own" Fitra"; This is the Islamic idea that a new-born child is endowed with the natural tendency to do good and to aspire for the knowledge of the Divine. Although all the Sufis mentioned the religious style of living as essential for healthy development, subject D considered that favourable family conditions (where co-operation, cohesion and satisfaction of the basic needs were met) were also important.

> "I understand healthy development in the context of religion. Bringing up children and their education should be in the context of religious values. This will help the child develop his Fitra reflecting natural goodness which is reinforced by good family conditions such as good food, good parenting and rearing styles, and good example. This will result in a well adjusted person who is religiously motivated to worshipping Allah and willing to participate in, and contribute to, his

society " (S-D).

They mentioned this conception in relation to the religious style of living explaining that its comprehensive and all-embracing characteristics shadow every aspect of life. In addition to this, subjects A, B, and D, believed that having good company and exposure to constructive social experience in the context of religious values were necessary for healthy development. Subjects A, B, and D mentioned that "conforming to social norms and contributing to society" are characteristics of healthy development. Subject C put it in a different way stating that only the religious way of living will lead to the best emotional, social, and cognitive development. It is important to note that all the Sufis had emphasised the religious, social, and psychological aspects of development while Subject C added the importance of the physical aspect.

The Sufi subjects all felt that they themselves had responsibility for the healthy development of children as long as they were concerned with religious education in their community. They shared the view that they have to educate children in the Maseed to learn Qur'an and the basics of Islam and to be influenced by its atmosphere. They also declared their responsibility to extend advice to parents because they believed that every Sufi has a special insight and knowledge about people's behaviour.

> " In my view, I'm responsible for the healthy development of children as far as I 'm concerned with their education in my Maseed, teaching them Qur'an and giving them the opportunity to live in such a special atmosphere. I'm also keen to extend advice to parents and other concerned people" (S-A).

S-D went on to state:

> "When children are admitted to Maseed at the age of 3 or 4, they have to be well catered for, disciplined, taught Qur'an, and see a good example in front of them. In addition to that, I'm also concerned with helping and advising parents particularly those who have troubled children" (S-D).

As far as stages of development are concerned the Sufi group mentioned childhood, adolescence, youthhood, and adulthood. None mentioned infancy. They all emphasised the special attention needed during childhood. They considered the attention to this stage as a religious necessity. They maintained that The Prophet has explicitly mentioned the importance of childhood as a crucial stage of development, learning and religious training.

> "Special attention should be given to childhood because it is an important stage in making what type of person the child would become in the future. Moreover Prophet Mohammed has stressed this importance in a famous 'Hadith'" (S-B).

3.3.1.1.2. Adjustment and Maladjustment

When asked which characteristics they would like to see in their children Sufis gave the following qualities: being religiously motivated, brave, honest, confident, sociable, truthful, obedient, and grateful to parents.

> "I would like to see in my children those characteristics always appreciated by our religion such as : honesty, telling the truth, obedience, confidence, courage, having good communication with people, cleanliness, and showing respect to parents and others" (S-A).

Subject C added creativity, and reciting Qur'an, while Subject D added attention, humour, and intelligence. The Sufi group shared the view that if a person had no religious feeling, he would not be able to have good characteristics.

> "I want to tell you something brother, about the roots of good behaviour. I believe that good characteristics are the fruits of a good level of religiosity and if a person does not have this religiosity he will be devoid of these good characteristics" (S-D).

The entire group agreed that lying and cheating, shyness, stealing, aggressiveness, disobedience, being religiously undutiful and ungrateful to parents are among undesirable characteristics. In addition to these subject A mentioned quarrelling, laziness, and inattentiveness while subject D added destructiveness and truanting. When Sufis were asked about the upset these undesirable behaviours might cause, all the respondents expressed that they will be upset by these symptoms because they reflect signs of failure in acquiring the appropriate behaviour in accordance with the societal and religious norms. This notion is clearly spelt out by subject C's response:

> " I feel very much annoyed when I touch some of these bad characteristics in children's behaviour because they indicate a deep-seated problem in the child's acquisition of the suitable behaviour anticipated by our society and dictated by our religion" (S-C) Subject D added that he was "Also upset by these problems as they indicate failure in bringing up children which parents are responsible for before 'Allah'".

The Sufi group declared its ability to detect worries and anxieties felt by children.

> " From my experience, and I expect most Sufis do, I can easily detect any kind of problem shown by children " (S-B).

When asked about the causes of these behaviour problems, Sufis enumerated the causes of these disturbances as bad family conditions, bad example, and an unfavourable surrounding environment (bad influence of peers, neighbours or other contacts).

> " In my opinion, the causes of these problems go back to family life- the type and amount of care children received, how parents materialised their beliefs and the way adopted in child-parents interaction. Moreover, an important factor is the influence of neighbours and other children in the street" (S-A).

> "The main cause of (these) problems is the failure in bringing up children in the religious frame of values" (S-C).

And according to him:

> "An irreligious way means that parents or the family at large are not paying attention to the religious teachings regarding child-care or themselves are failing to set a good example for their children to follow in terms of performing prayers or any other religious duties".

In addition, Subjects C and D directly pointed out that the lack of religious awareness was the most serious problem. It is of interest to note that ingratitude to parents was considered as a serious behaviour problem. Then the Sufis were asked about the action they were likely to take if they saw those problems in children's behaviour. In response to this question, all subjects mentioned that they would help troubled children themselves through religious guidance and special supervised training and they might also recommend professional help (seeking a doctor or psychologist) afterwards.

> "In most cases I will try first to analyse the problem and its causes and then I will try to change the undesirable characteristics through a religious guide plan and training, Sometimes I used to advise parents of troubled children to take them to doctors or other child specialists" (S-B).

Subject D maintained that:

> "Some of the disordered children are influenced by an evil eye or evil spirit which were to be cured by reading certain verses from the Qur'an and some rituals".

Subject A remarked that:

> "Maseed's children have less disturbances compared to their counterpart outside because they have the advantage of being socialised in a spiritually confined environment" (S-A).

3.3.1.1.3 The Family and Development

All the Sufis advocated early marriage. They all agreed that females should get married before 20. The ideal age for male marriage was thought to be mid twenties. These views were justified in the following terms.

> "It is important for a person to get married earlier in order to keep himself on the right Islamic path and to breed more children as our Prophet recommended. In the Sudanese society people appreciate early marriage of girls so as to remain on the right path because Sudanese people are more sensitive to the reputation of women rather than that of men" (S-B).

This might indicate the social implication and significance of early marriage of females because, as is mentioned, their religion has recommended early marriage in order to have a stable community and a productive society. In addition, all of the Sufis preferred the extended family for rearing children. They also agreed that this type of family will facilitate constructive socialisation for children, emotional and social support, co-operation and more protection for its members.

> "I think parents, children, and grandparents should live in one house. This type of family strengthens ties and promotes relationships among the members. This would help in times of stress. Economic co-operation is also possible between the members who can support each other specially in looking after children. Children in such families may find it easier to go, talk, and interact with other people because they have some sort of social training in their homes as they have a

chance of mixing with other children in the same place and also from grandparents who live there" (S-C).

Moreover, subject B suggested that:

"I think the extended family can offer more appropriate conditions for healthy development such as social and emotional support from other members. This will help protect both children and parents from adverse conditions like stress, death or loss of one parent, and any other hardships" (S-B).

In addition Subject D mentioned that:

"Whatever the type of family is, the important thing is to bring up children according to the religious way of living" (S-D).

3.3.1.1.4. Child rearing

On extending general advice for the best ways of rearing children in the Sudan, Sufis proposed that parents should adopt all the religious commands related to child-care and socialisation such as feeding, weaning, discipline, and modelling. Parents should also appear as good examples for their children.

"The possible advice I can give is that parents should keep the whole child-rearing process within the Islamic frame of values and practices, and they should be a good example for their children " (S-B).

With regard to this emphasis on the religious command, subject A had a further interpretation. He proposed that:

"The spiritual element (the intensive feeling and enjoyment of the relatedness to the Divine) is very important in making a good person" (S-A).

All of the Sufis thought that Sudanese mothers were doing well in terms of child-care and guidance as long as they produced good citizens. Some of Sufis suggested that more dedication to religious education and awareness was needed.

"I think Sudanese mothers are doing their job at a good level since they are able to produce good citizens according to the judgement of the Sudanese people. But I

> also believe that if they get better education and religious awareness, they will do far better than now because they can have more religious insight and responsibility in dealing with children upbringing" (S-B).

The sufi group also all agreed that breast-feeding has nutritional and emotional values for the child. Moreover, they mentioned that the Qur'an has clearly stated the importance of breast-feeding and its duration. Accordingly weaning is to be attained around the end of the second year of the child's life.

> " Qur'an tells us to breast-feed our children and if a mother has not enough milk, a substitute feeding-mother is preferable. This implies the importance of breast-feeding as the best food for the child and while the mother is carrying her child up to her chest, the child feels secure and attached to her. Weaning is directly mentioned in Qur'an to be around two years" (S-B).

The peer group was also seen as being of great importance for effective socialisation. When asked about whom they would prefer their children to play with, all Sufis emphasised that children should play with their peers and should be given some sort of freedom in a supervised context to enrich their social experience.

> "In my view, I think children should play with their mates and age group with some supervision from parents or those concerned. I'm happy to say that this usually happens in our Maseed as people are involved in religious activities and learning and children used to see good example in front of them. In Maseed's life children are allowed to play and do social activities under the eye of the maseed's supervisor" (S-D).

All subjects, except subject C, suggested that the Maseed is the best place for peers activities because it is a confined place with a special spiritual atmosphere.

3.3.1.1.5. Sex Differences

Regarding this issue the Sufis were asked if they would encourage or discourage sex differences. All the subjects shared the view that boys and girls should be treated equally till around the age of 7, and then differently in order to qualify for their future roles. A girl should be trained to be a good mother whereas a boy has to acquire those qualities for being a good man.

> "In the Sudan it is very important to take seriously the issue of sex differences. Although girls and boys are brought up in the same way up to about the age of 7 years, they are separated afterwards in order to allow for different socialisation and training according to the future role of each sex." (S-B).

Subject C stressed that a boy should be reared in a way to qualify for a dominant role in his society (in the Sudanese culture dominant role is always expected from boys). Subject D considered that the required behavioural and religious characteristics remain the same for both sexes.

3.3.1.1.6. Culture and Development

The Sufis placed a great significance upon culture in shaping developmental practices particularly parenting, child-care activities and social affiliation.

> "I think culture is playing a fundamental role in formulating concepts and practices of development for any given society. This role is very clear in the Sudan as traditions and beliefs are influencing the way people feed, wean, protect, discipline, and educate their children." (S-B).

All Sufis thought religion had a tremendous impact on beliefs, concepts, and practices of family life, social behaviour, child-care, and parenting. Reflecting on this point, subject D stated that:

> "Our religion is a comprehensive way of life defining all aspects of familial, social, economic, and spiritual life. In the light of this understanding, concepts and practices of development are substantially influenced by religion" (S-D).

According to subject D:

> "religious stories and songs are very important in socialising children. Memorising the Qur'an is also very valuable as it enhances the children's intellectual abilities and standards of conduct"

Subject A added that:

> " Religion is important to me and my children to go in the right path that leads to 'Allah ' ".

All Sufis agreed that children must grow in a total frame of Islamic values and way of life. Rearing practices, parenting strategies and styles, and examples should be in the light of Islam. The Sufi also believed that Maseed or Khalwa education (the traditional system for religious education) should precede the modern system of education if any. The reason behind that is suggested by the following answer:

> "children should be sent to Khalwa before going to school so as to learn Qur'an first which will help them understand and practice their religion. In turn, this will help them broaden their knowledge and experience and have good social awareness to be good citizens" (S-A).

3.3.1.1.7. The Sufi's View in Summary

For the Sufis it is quite clear that religion defines the goal of development and provides the means to that goal. They believe that Islam should both permeate and structure family life and regulate child-care practices. There is a clear belief that if the strictures of the Qura'n are adhered to in these matters then children will grow to be both happy (through spiritual consolation) and productive members of Sudanese society. Because of this they felt that the (extended) family was the main vehicle of socialisation and it is there that the rules of religion are learnt and the response to religion made. Their views of healthy development were firmly grounded in tradition and emphasised sociability and filial piety as crucial values. Where development went wrong it was clear that they suggested both discipline and spiritual remedies. In this way the Sufis set a benchmark of extreme traditionality and religiosity in the Sudanese society.

3.3.1.2. The Clinical Psychologists' View

3.3.1.2.1. The Nature of Development

Clinicians mentioned that healthy development is attained when the person is capable of understanding and relating to his physical and social environment and accordingly he can find his way to participate in his society.

> "A healthy developed child is one who is physically well able of doing any activity appropriate to his age and sex; has good emotional ties to his parents and relates to his people. He should also have the ability to sense, understand, and interact with his society" (S-I).

Subjects K defined the aims of development as:

> "A well brought up person is a normal, socially acceptable, and an independent one who demonstrates intellectual abilities and feelings often anticipated from his age and sex according to the standards of his society and he is also capable of interacting and contributing to the society" (S-K).

While subject L made a clear distinction between the process and aim of development.

> "A child is said to be healthy developed when he is physically, psychologically, and perceptually able to relate and interact with his society. This is achieved through careful bringing up of children, satisfying their needs and looking after their education and guidance." (S- L).

It is of interest to note that all the clinicians emphasised the physical, cognitive, and psychological aspects of development while Subject J added the importance of the religious aspect. All clinicians attempted to define the goal of healthy development whereas only two of them (J & L) tried to explain the means through which healthy development could be achieved. Clinicians mentioned that the sequence of development runs through the stages of infancy, early childhood, late childhood, adolescence, and adulthood. Puberty was only mentioned by Subject I. All subjects agreed that special attention should be given to childhood. As with the Sufis they justified this attitude in terms of influence childhood experience has had on the entire life of the person. In addition, subjects K and L also mentioned that some attention must be given to adolescence:

> "Also some attention should be given to adolescence because it constitutes a critical stage of development during which the child experiences the transition to adulthood where emotional, bodily, and attitudinal changes occur" (S-K).

All clinicians stated that the primary responsibility for healthy development of children is with parents. As clinical psychologists they were concerned with observation, analysis and treatment of children's behaviour and extending advice to parents, teachers and other people or agencies who deal with children.

> "Parents should provide all the means that will enable their children to develop in a healthy manner, but as a clinical psychologist I shall be concerned with observing and analysing children's behaviour and extend advice to parents and other people who deal with them (S-J).

In addition, Subject I, who was also a mother, mentioned that:

> "As a mother, I'm keen on keeping my child attached to me especially in infancy but in childhood I will leave him with my mother during working hours. I'm always ready to look after him and satisfy his needs. I will be his friend specially when he reaches adolescence and I will let him have more freedom as he is becoming older in order to let him learn to choose for himself" (S-I).

3.3.1.2.2. Adjustment and Maladjustment

All clinicians identified good characteristics of children as honesty, cleanliness, confidence, sociability, obedience, co-operativeness, dutifulness, and respectfulness. Subject J added having religious sense while Subjects I, K, L added attentiveness, creativity, and independence. All of them agreed that undesirable characteristics include: Lying, cheating, isolation, passiveness, stealing, fearfulness, aggressiveness, disobedience, undutifulness, and carelessness.

> " I would like to see my children and any other ones living happily well mannered and without those bad characteristics such as telling lies, cheating me or any other person, sitting passive in home doing nothing or learning nothing valuable, stealing always from home or even once from outside, lacking good communication with other people, afraid from minor things or situation, disobeying adults or being aggressive with his brothers and sister or mates. Also I would not be happy if my child was not keen or careless to do his prayers or any other duty required from his age" (S-J).

In addition to this, subjects I and L mentioned truancy, laziness, and inattention. When asked to what extent were these undesirable behaviours upsetting to them and to the parents, clinicians reported that parents and they themselves would be upset by these behaviours because they indicate signs of unhealthy development and detachment from societal standards and expectations.

> " These problems are surely very upsetting to their parents and as well to me as a person concerned with analysing people's behaviour. This is because these problems reflect failure to conform to social behaviour and to have the personal characteristics expected from a normal person in our community. Moreover they indicate parent's failure to produce good citizens" (S-L).

As clinicians, the subjects were asked if they encountered some of these disturbances. All reported that during their working years only a few cases were referred to them. Most of the referrals included depression, autism, anxiety reactions specially sleep disturbances and bedwetting, conversion hysteria and phobias. All subjects shared the view that this small rate of referral was due to the idea that parents were not sensitive enough to detect most of behaviour problems or that they were ashamed to report them. But subject K gave an additional interpretation:

> "The poor rate of referral was affected by the concept of and attitudes towards mental health in general. People think of physical health more seriously than the psychological one and most people consider emotional and behavioural problems of children will be cured by the passage of time" (S-K).

Clinicians attributed the primary causes of disturbances to bad family conditions, divorce, poor child-care activities, bad example, and an unfavourable environment (bad influence of peers or neighbours or other contacts). Subject K felt that these factors were directly related to changes in Sudanese society:

> " To me these disturbances are due to the changing state of the Sudanese society as it is experiencing social change. This change is affecting the stability of the family, social relations, and socio-economic status. Parenting styles, family discord, over dependence, and mother-father conflict are among the important causes of childhood problems" (S-K).

Subject J added parents' health background, and faulty learning while subjects I and L considered addiction and the lack of religious awareness in the family were among the causes of these problems.

When asked about the treatment of these problems, all subjects mentioned that in collaboration with their families they would try to help troubled children through precise diagnosis of problems and suitable behavioural training and guidance programs. In addition, they would probably involve psychiatrists.

> "When a child is referred to me I will first try to find the roots of the problem and then devise a certain plan for treatment involving implementation of behavioural techniques and guidance programs which require the help of the child's family.

Sometimes I used to work closely with the psychiatrist" (S-I).

Furthermore, subjects I and L suggested that in rural areas where professional help was not easily accessible they might recommend seeking help from teachers and Sufis.

3.3.1.2.3. The Family & Development

As with the Sufis the clinicians proposed that females should get married earlier than males. However, they felt that the ideal age for females was between 20 and 25 years while for males it was between 30 -35 years. Explanations of this view was suggested by subject (SI).

> "A male should get married by the age of 30-35 years old and a female by the age of 20 because early marriage for women is preferable in the Sudan. When they get married they gain more social recognition. On the other hand males are only required to earn money for the living of their families and this will put more burden upon them in addition to completing their education" (S-I).

Concerning family structure, three clinicians (I, K, L) preferred the extended family type for rearing children. Subject K maintained that

> " Although nuclear families are now on the increase in the Sudan, as a result of urbanisation, I would prefer the extended family type for the good conditions it provides for healthy development such as grandparent support for parents and children".

They also agreed that this type of family would strengthen family ties and there was a possibility of grandparents attachment and involvement in child-care activities. This would offer better socialisation for children, emotional and social support for them, co-operation and protection for family members.

> "Grandparents in extended families usually help in looking after children, keeping close relationship with them, telling them stories and they do also sometimes assist in running the family matters and support members of family in social or economic aspects" (S-L).

Also subject L agreed with Subject I in the view that the help the extended type can offer was particularly significant at times of bereavement or loss of one of the parents. Moreover,

subject I mentioned that "nuclear families have less experience in customs and cultural practices".

Subject J alone mentioned that

> "He would prefer the nuclear family type because it would help the parents rear their children in the way they like without interference from grandparents. Having the grandparents living in the same house sometimes causes family problems".

3.3.1.2.4. Child-care

There was a general consensus among the clinicians group that Sudanese mothers in general were doing well in terms of child-care and guidance. Subject "I" reported that:

> "In general I think Sudanese mothers are responsible and careful in rearing their children with the help they find from their mothers but this attention decreases as the child becomes older. In addition, I think Sudanese mothers are not able to detect most of behaviour problems in the appropriate time".

Subjects L agreed with subject I that:

> "Sudanese mothers were good at child-care, but they used to pay little attention to their children after the age of 7 and they were less sensitive to discover child behaviour problems".

However, three clinicians (I, J, L) suggested that further improvement in mothering and child-care is possible through education and primary health care.

> "I think Sudanese mothers should receive more training in maternity and child-care in order to improve their mothering practices" (S-L).

The four members of this group believed that breast-feeding has nutritional and emotional value for the child.

> "The majority of the Sudanese mothers used to breastfeed their babies and tended to wean them later. I think this is very important not only because mother's milk is nutritionally valuable but also the baby experiences pleasure and security while being carried by the chest of his mother" (S-I).

Clinicians agreed that children should play with their age-group under some sort of supervision because this will help them have more social experience.

> "I think children should play within their age group and parents should be careful about who plays with their children. Children in the play group can learn from each other good things such as having social relations, taking care of small children, improving their vocabulary and language use. They can also influence each other in a negative way such as lying, swearing, frightening, or quarrel" (S-L).

Subject K, added that children must play together because

> "peers have a similar experience and share certain views and ideas and can learn from each other" (S-K).

The clinicians advised parents that they should primarily be concerned with providing their children with good nourishment, discipline, socialisation and good learning facilities. Parents should also appear as a good example for their children. While subject I agreed with subject L that,

> "Besides the normal child-care activities, parents should remain closer to their children, be friendly and play with them to understand and help them develop their abilities" (S-L).

subject J said that

> "Parents should adopt the religious way of life because it accounts for child-care activities such as feeding, weaning, discipline, and socialisation and modelling" (S-J).

3.3.1.2.5. Sex Differences

The clinicians reported that sex differences were very common in the Sudan where the ability to control emotions and think rationally and work hard were demanded from boys rather than from girls.

> " I think sex segregation was very common in the Sudan where the daughter was expected to be a mother so she was brought up in a way to assume this role. On

> the other hand, the son was trained to be a good man and a father who got the ability to control his emotions, be rational, and a hard-worker" (S-I).

Also they all agreed that boys and girls were treated equally till the age of 6 or 7 after which different styles were adopted in order to let them qualify for their future roles as fathers and mothers.

> "For the first six or seven years children were treated equally and after that they were to be prepared for their different social roles but parents' warmth and affections toward them remained equally" (S-K).

3.3.1.2.6. Culture and Development

Clinicians admitted that culture had enormous influence on people's perceptions of development and its practices particularly parenting, child-care activities, social relations, family interaction, and various family economic affairs. Two clinicians (I & K) assigned religion a tremendous role in shaping the person's life and regulating the entire social system, social behaviour, family life, child-care and parenting. Having had this influence, religion was also considered as a protective factor against stress and risks when things were getting tough for a person or even the whole family.

> "It is known that Sudanese culture is very much influenced by Islam and consequently the people's understanding of development and its processes, parenting, family life, and social interaction stems from this influence. Moreover religious observance in such a society might serve as a buffer factor against risky life conditions and psychological stress" (S-I).

Subject K mentioned that:

> " I believe that in the Sudan religion is the source of most of the social, familial, economic values. These, in turn, affect the concept and practices of development. Religious stories and memorising the Qur'an are very important in enhancing children's intellectual abilities and conduct standard" (S-K).

Subject L had a moderate idea about the impact of religion on people's life.

> "Although I realise that religion has some influence upon people's attitudes, I can not undermine the influence of other factors on ideas of development and its

practices such as family background, economic conditions, and parents' level of education" (S-L).

Subject J agreed with subject L who mentioned that:

"It is the parents' responsibility to adopt the best ways that will influence their children's development",

Although all subjects in this group shared the view that children must go to nursery or Khalwa, they had different reasons for that. Subjects I and L justified it in terms of having good pre-school experience,

" I will let my children go to nursery and/or Khalwa in order to enable them have good pre-school experience" (S-I).

Whereas subject J mentioned that:

"He would prefer that Khalwa and nursery be integrated in one body so as to offer basic religious education, and at the same time keep the advantages of modern education".

3.3.1.2.7. The Clinicians View in Summary

While the clinicians views were as expected more secular than those of the Sufi, in keeping with their Western training, they still recognised the importance of religion in determining the cultural context for development. This awareness was clear particularly in views about the role of religion in formulating the concepts of development and practices, family life, child-care, parenting and adjustment. However, there is a clear recognition for a need to change. For instance, it was felt that there is a need for more education and primary health-care to improve maternity and child-care practices. In addition, the viability of the extended family as a traditional ideal contributing to the psychological well-being of both young parents and children is apparently well received by clinicians. However, there is a trend still among them calling for the adoption of the Western nuclear family type as is believed to secure some independence from the influence of grandparents. Likewise, although clinicians have sensed the influence of religion on ideas of development and its practices, they continue to place some emphasis on the impact of factors such as family socio-economic conditions, and parents' level of education as sound contributors to the physical, cognitive, and psychological aspects of development. A complex mix of the

traditional and the modern, the eastern and western and the religious and the secular is ostensibly evident. This mix would presumably cause some sort of tension for Sudanese clinical psychologists. On the one hand they tend to cherish their culture, traditions, beliefs and the psychological practices grounded in them and on the other hand they have an anxious zeal to apply what they have learned from their profession and training and hence they need to be recognised as modern psychologists. In fact this predicament is not only felt by Sudanese psychologists but also Muslim psychologists at large, since under the prestigious umbrella of modern psychology they, consciously or unconsciously, accept Western theories and practices that are sometimes unsuitable for application in their Muslim countries (Badri, 1979).

3.3.1.3. The Parents' View

3.3.1.3.1. The Nature of Development

Mothers and fathers were interviewed separately but their views will be compared here within one section. There was broad agreement both among the mothers and fathers as well as between these groups over this question. All agreed that healthy development was achieved when the person was mentally, physically, and emotionally oriented towards effective personal and social functionings that allowed him to contribute to society.

However, some couples emphasised the importance of religion more than others. For instance two fathers, (M and N) believed that healthy development was best acquired through the Islamic frame of values. Both fathers agreed that this religious way of living would help children actualise their own "Fitra".

> "In Sudan, a healthy developed person is the one who is brought up in the Islamic way of life acquiring those values that help him develop his Fitra to be a true believer in Allah showing certain characteristics such as respect, honesty, and truthfulness. He is therefore able to put up with people and be acceptable to his society as long as he continues to play his role at both the personal and social levels" (S-M).

The wives of these two also grounded their descriptions of development in religious observance. Of this S-Q was typical.

> "From my experience as a mother of several sons and daughters, a healthy developed child is one who has a good physical health and who laughs when he is happy and cries at times of anger or distress. He recognises and relates to the members of his family and when he grows up will develop good social relations

> and shall be accepted by his society. These things will be real behaviour of the child if his family keeps their eye open and follow the teachings of our Prophet Mohammed" (S- Q).

This link between religion and development was explained by these mothers' using the notion that the parents or the family, in which the child is reared, should lead a religious style of living in relation to all aspects of development. The other two couples believed that religion was less central to development and explained this in the following ways.

> "A healthy person behaves normally in his society and contributes to its welfare, in the sense that he observes the appropriate standards of his society regarding how he thinks about things, the relationship he has with family and others, and his general social responsibility" (S-O).

One of the mothers adding that:

> "Healthy development is attained when a person is physically capable of doing his activities, able to think effectively, and has a sense of belonging to his people and has a sense of responsibility towards his society" (S-S).

Both mothers and fathers agreed that the stages of development are childhood, adolescence, youthhood, and adulthood. As with the Sufis, fathers did not mention the stage of infancy. All four fathers emphasised that special attention should be directed to childhood. However, they put different justification for this special attention. While all subjects confirmed the significance of childhood experience in shaping behaviour, subjects M, and N mentioned that attention to this stage is a religious command. They maintained that The Prophet has pointed out the implications of this stage as extremely important in the course of learning and training.

> "Attention to childhood is very important because it will affect the child's future. At the same time attention to childhood is recommended by our Prophet so that parents would pay special attention to their children" (S-M).

Mothers mentioned that the sequence and stages of development start with childhood, adolescence, youthhood, and adulthood. None of the subject mentioned infancy. When asked about the importance of these stages, three mothers (Q, S, T) suggested that special attention should be directed to childhood and adolescence respectively. They claimed that

childhood experience has a tremendous impact on the person's life. They also mentioned that adolescence is an important stage of life where physical and psychological changes take place.

> "Families should be aware of the importance of childhood and adolescence and their tremendous role in shaping the person's character. Childhood represents the first step in life that deserves the parents' attention while adolescence involves bodily and psychological changes that imply new personal and social roles" (S-T).

Having a different opinion, subject U mentioned that attention should first be paid to adolescence because it represents a phase of transition to adulthood where a change of opinions and views is expected.

> "Adolescence requires special attention because it is the most important stage of development that witnesses changes in the child's body, voice, shape, understanding of self and family and his new social role" (S-U).

All mothers and fathers said that they were fully responsible for the healthy development of their children as long as they were concerned with looking after them. However, there was a clear recognition by both mothers and fathers of the division of labour within the household. Fathers mentioned that they had to provide all the necessary means of development such as shelter, food, toys, and in collaboration with mothers offering good child-care facilities.

> "It is my responsibility to facilitate healthy development for my children. I should secure their needs such as food, good housing, clothes and to help their mother in child rearing matters. I'm also responsible for their education and looking after them when they are outside homes. I'm keen to be a good example for them and to develop in them the religious sense and help them learn the basics of Qur'an" (S-O).

Moreover, this added responsibility for religious education was echoed by one other father. Subject M claimed that:

> "I'm fully responsible for the healthy development of my children as a religious requirement according to our Islamic values".

It was evident that fathers also shared the idea that outside supervision and education of children were essential concerns for them. Three fathers (M, N, & O) emphasised their role as important examples for their children to follow. These fathers held themselves responsible for developing the religious awareness in their children and helping them learn the Qur'an and the basics of Islam. Mothers, on the other hand, argued that they should cater for the basic needs of their children, provide a favourable home atmosphere, educate them and be a good example for them.

> " It is clear that as a mother I'm responsible for the healthy development of my children. I used to feed, clean, dress, and entertain them. I'm also concerned with making our home a pleasant place for them and of being a good example for them. Together with their father I always try to supervise and look for good schools for them" (S-T).

Subject U added that:

> "I think it is my religious responsibility and contribution to our society to bring up my children well reared, disciplined and mannered children so as to make of them good and useful citizens."

3.3.1.3.2. Adjustment and Maladjustment

Fathers' and mothers' ideas of adjustment and maladjustment shared many features in common. Good characteristics included being religiously motivated (abiding by religion will help him develop good characteristics) brave, honest, confident, sociable, truthful, obedient, and grateful to parents.

> " I would be very much pleased to see my child being a firm believer, brave, confident, obedient, honest, respectful to parents and others, socially interactive, and responsible" (S-M).

Subject O and P (fathers) added independence, attentiveness, and industriousness to this list. All of them agreed that other undesirable characteristics include: lying, cheating, being passive, stealing, fearful, aggressive, disobedient, religiously undutiful, unplayful, and ungrateful to parents. Mother U put it this way:

> " I would like to see my child honest when speaking and or doing things, has good relation with sisters and brothers, mates, and other people without being shy or

afraid of them or any new situation appropriate to his age. As well I like to see him happy and easy-going, obedient, confident, clean, and grateful to parents" (S-U).

Filial piety was mentioned as a positive characteristic by many parents and its opposite, disrespect for parents, as a major cause for concern.

"I would be very disappointed to see my child lying, cheating, stealing, fearful, lonely, lazy, inattentive, dirty, aggressive, quarrelling with brothers and sisters, ungrateful to parents, and shy " (S-T).

It seemed clear that both sets of parents would be unhappy with these patterns of behaviour that they as parents would be letting down the community if their children behaved in these ways.

"They upset me to a large extent because they are absolutely unacceptable to our religion and society" (S-N).

Subject M added that:

"These problems will indicate failure in this aspect and in bringing up children in general which parents are responsible for before 'Allah'" (S-M).

Social expectations were also central to the thinking of the mothers on this issue.

"These bad characteristics are very upsetting to me because they show that children are not behaving in the same way as expected by our society and religion. Children having these problems will not be able to benefit themselves or do good for their people" (Mother-U).

In terms of parents' attributions of cause, again there was much agreement. Fathers in general suggested poor family conditions, (including family discord or conflict, maltreatment of children, bad example, and bad influence of peers or neighbours or other social contacts.

"I think the main causes of these problems might be attributed to poor parenting, poor family conditions where children's needs are not satisfactorily met, father -mother conflict, and negative influence of people around the family" (S-P).

In addition Subject M believed that:

> "Poor religious observance of parents or family could be among the major causes of behaviour problems" (S-M).

This view was also supported by subjects mothers S and T. One mother added poor nutrition as a possible cause. In defining poor parenting subject U explained that:

> "Continuous help and over-flexibility can spoil the child".

In response to the question of what they will do if one or more of these problems is seen in their children's behaviour, all fathers mentioned that they would help troubled children themselves through guidance and training and with help from grandparents whenever possible. They might also seek Sufi or professional help afterwards.

> " In dealing with these problems I will try first to know something about their causes and then I shall try to help children by giving some advice and encouraging them to do some training tasks. Also I might seek help from teachers, grandparents, Sufis or even doctors" (S-O).

In seeking professional help, subject M suggested that he would prefer to seek the consent of a Muslim psychologist if possible. When asked about this remark he justified it as follows:

> "Because he knows what is right and what is wrong according to Qur'an and Sunna and therefore he has a clear sight about the Islamic values and their role in chilren's life and development. He is also aware of the relation between the person's behaviour problems and his religious awareness " (S-M).

Mothers said that they would seek help from teachers, grandparents, a Sufi, or might seek professional help from a doctor or a psychologist.

> "In case my child is showing some of these undesirable behaviours, I will try to see what are the causes then I will try to help him through by giving him or her some advice and training from me as well as from grandparents or with some collaboration with his school teachers. I might seek professional help if necessary,

and seeking help from a sufi 'murshid' is also possible" (S-S).

Subject U commented that:

"From my own experience, I was very much impressed by the Sufi's wisdom in treating these problems. It was really very useful treatment".

3.3.1.3.3. The Family and Development

There was marked disagreement between mothers and fathers over the timing of marriage for the two sexes. Fathers favoured early marriage for females (ie. in their early twenties). They thought the ideal age for males was between 28 and 32 years. Early marriage was favoured for a number of reasons. Two examples are typical.

"In my opinion, females need males to look after them. Besides they will be more respected if they get married and their families will be proud of that " (S-P).

Or:

"Our religion has recommended to yield special care by socially preferring to marrying them earlier" (S-M).

Interestingly, the subjects did not place the same emphasis on male marriage although Islam teaches that early marriage will help people (male or female) remain in the right path of religiosity. Mothers, except Q, did not seem to favour early marriage in general for women. Their estimate of the ideal age for women coincided much more closely with that of the clinicians (e.g., around 25). Subject Q alone defended early marriage as she maintained that a female should get married by the age of 15 years while males at the age of 20 years. It is of interest to note that subject Q was the only uneducated mother among the sample. This might indicate the social significance of early marriage for rural or uneducated mothers. She explained her opinion by saying that:

"Our religion has recommended early marriage in order to have good life and to have the opportunity for breeding more children." (S-Q).

There was little agreement among fathers and mothers over the best family structure for children. Two couples preferred the extended family type for rearing children.

"I would prefer that children, parents, and grandparents could live together because close relationship with the original family would give the kindness and

gentle touch necessary for children and would also help strengthen family ties" (S-M).

This was supported by another father who said that:

"I think we and our children and our parents if possible have to live together because this will help us co-operate in carrying out our family duties. This co-operation will facilitate a better upbringing of children as they can find more care, learning and interaction with grandparents" (S-N).

A mother echoed this viewpoint:

" In our place here it is natural and common to see grandparents living in the same house with their sons or daughters and grandsons. This is good for bringing up children because they find help and friendship from grandparents. I myself used to find very good help from my mother in caring for my children, and in other social and financial matters " (S-Q).

However subject O and P expressed their preference for the nuclear family type. Subject O mentioned that:

'I would prefer that parents and children alone must live together because this will allow parents to have more freedom in their family affairs and have their own style and ways of rearing their children without interference from parents. I think this type of family is better for bringing up children" (S-O),

while subject P declared that:

"I think children and their parents should only live together, because this type of family might help children acquire some good characteristics such as doing things and duties by themselves without awaiting help from others" (S-P).

Mothers U and S expressed their preference to the nuclear type because, as subject S reported,

" it will allow the parents to bring up their children in their own style without any influence from grandparents".

3.3.1.3.4 Child-care

Although the fathers group had a general feeling that Sudanese mothers were doing well in terms of child-care and guidance, some of them suggested that organised training in child-care handling within the context of cultural and religious values might improve the quality of mothering and child-care in the Sudan.

> "In my opinion, I think Sudanese mothers are doing a fair job in rearing their children although I feel that if systematic training in child-care activities within our cultural and religious frame of values is available for them, a tremendous improvement in this area will be the result." (S-M).

Subject P had a similar idea about the Sudanese mothers' approach but he raised the suggestion that a more modern approach would benefit the children:

> "Influenced by the traditional styles of bringing up children, I think Sudanese mothers are doing well at rearing their children. But I will be glad to see them learning the modern styles as well to overcome the deficiencies of the traditional ways such as excessive dependence on family or kinship" (S-P).

This rather mixed reaction to the work of Sudanese mothers was echoed by the mothers themselves.

> "I think Sudanese mothers are doing well in looking after their children and they have got good experience of rearing children from grandmothers who usually support them" (S-T).

However, two mothers (U, S) were not satisfied by Sudanese mothers' quality of child-care activities. This was indicated by subject S's idea that:

> "I think Sudanese mothers are still in need of more training in child-care to improve the rearing of their children because it is saddening for me to see that feeding and care activities are still insufficient " (S-S).

Supporting the same idea subject U, expressed that:

> "I wish I could see a real effort to upgrade mothering styles through modern

education and training in order to lessen the influence of grandmothers" (S-U).

This call for more modern approaches is also reflected in their views about the nature of development.

In extending their general advice for the best ways of rearing children, nearly all fathers and mothers shared the view that parents should comply to the religious values related to child-care and socialisation such as feeding, weaning, discipline, and modelling. M (a father) related this in the following way.

> "It is important that parents bring up their children in the Islamic frame of values that direct us to satisfy the child's needs such as feeding, being warm and friendly with him and provide a good example for him. This kind of practice will help parents train their children in the religious way of living" (S-M).

In the same line another father mentioned that:

> "In general, I believe that the best way of bringing up children in the Sudan is to observe the Islamic teachings concerning child-care (S-N).

Advice extended by mothers for the best ways of rearing children involved two ideas. The first one presented by those who believe that parents should pay attention to the religious teachings related to child-care and socialisation such as feeding, weaning, discipline, and modelling.

> "I believe that the best approach to bringing up children involves the implementation of the religious commands concerning child-care (feeding, weaning, discipline, and having a good example) and welfare. So I advise parents to adopt this approach in order to have their children reared in the best ways" (S-T).

The two couples who had presented a generally more secular account on other issues, while respecting the religious frame, described their concerns in less religious terms. For instance, mother S thought families should concentrate on improving the family conditions (health, education, and economy) so as to provide satisfactory child-care activities.

> " I think the best advice I can give is that parents should always work towards improving the financial and social conditions of their families and pay attention to

their health and be a good example to their children. This will create a good family atmosphere facilitating a good level of child-care" (S-S).

As far as the best way to feed a young child was concerned mothers and fathers agreed on both the nutritional and emotional value of breast feeding for the child. Subject P had an additional idea that:

"Although breast-feeding is good, bottle-feeding is also helpful".

It is interesting to note that one mother (the uneducated Q) though she used to breastfeed her children, had no clear reason for that:

"I used to breastfeed my children and wean them after two years as all people do in our village" (S-Q).

Almost all mothers were aware that the Qur'an gives importance to breast-feeding and its duration. Accordingly weaning is to take place around the end of the second year of the child's life.

"According to Qur'an, breast-feeding is important and weaning should take place towards the end of the second year" (S-S).

Subject U added that:" Breast-feeding is recommended, but powdered milk is also useful" while mother S, like subject T, observed that breast-feeding will immunise the child against infections. Father O went on to quote the Qur'an that if a mother has not enough milk, a substitute feeding-mother is necessary.

Fathers and mothers shared the idea that children should play with their peers with some precautions.

"I would prefer my children to play with their mates of the same age, and whose parents share our views. This is because children may influence each others' conduct in a number of ways and I would like to avoid any negative influence" (S-M).

Another father mentioned that:

> "I would prefer to see my children play within their age group but we will keep supervising them as much as we can" (S-N).

When asked about the influence of the peer group, all mothers believed that children of the same age should play together because as subject U mentioned

> "they are similar in the way they talk, think, and behave and they can learn from each other to gain more experience" (S-U).

Three mothers (S, U, & T) were keen that their children be supervised while they are playing with other children.

> "I'm interested in seeing my kids playing with their mates whom I always try to have an idea about in order to keep my children safe and behave well" (S-S).

3.3.1.3.5. Sex Differences

Again there was agreement over whether boys and girls should be brought separately in sex specific ways.

> "I used to treat my children equally up to the age of about 7 and then differently according to their sex to meet the need of preparing them to future roles" (Father N).

A girl was always reminded to be a good future-mother. In order to qualify for that she was encouraged to be kind, mild, affectionate, and trained in the overall household management. Whereas a boy had to acquire those qualities to be a good man. Subject M stressed that:

> "It was a strong belief in the Sudanese society that a boy had to be reared in a way to qualify for a manly role in his society whereas girls were brought up softly and submissively in order to develop into a potential mother " (S-M).

Subject O maintained that:

> "At the moral level, they were all treated the same"

Three mothers (U, S, T) agreed that boys and girls were treated equally till the age of about 7 after which they received different consideration to help them qualify for their future

roles. A girl was then trained closely to be a good future-mother whereas boys to maintain adherence to their fathers so that they could assimilate those qualities to be good men.

> "It was quite usual in our society to rear children in the same way till they reached the age of seven at which rearing policies started to change so that children could begin to sense their different social and future roles" (S-S).

Obviously supporting sex differences, the fourth mother (Q) declared that:

> "Boys and girls were different in sex, social, and future roles so they should be reared in a different way".

Whereas subject U announced that:

> "Although we used to separate our sons and daughters after the age of seven particularly in beds and other social functions, it had never happened to us to morally differentiate between them" (S-U).

3.3.1.3.6. Culture and Development

Fathers believed that the process and meaning of development were well understood in the light of culture as it contains the values and characteristics of the society.

> "In my opinion, I cannot isolate any person from his culture because the way he talks, thinks, feels, eats, works, the way he relates to his family and interacts with others bears the features of his culture. I understand that concepts of development and the way people used to rear their children are reflections of the above mentioned characteristics" (S-M).

Mothers agreed that culture is a very significant context of traditions, values, customs, and practices.

> "Culture shapes both the personal and social behaviour and defines concepts and roles of development, parenting, example and family functions".

All fathers considered religion was so important that every aspect of the person was affected by its influence. Notions of development and child-rearing practices were no exceptions. Emphasising this point, subject N maintained that:

> "Our Islamic religion influences parents' attitudes, beliefs, and behaviour that determine styles of rearing children. Other aspects of child-care such as feeding and weaning are directly dictated by our religion" (S-N).

This view was shared by most of the mothers. Subject S declared that:

> "I think in the Sudan, Islam influences greatly the meaning of development and its practices such as child-care, family processes, or parents' ideas about life" (S-S).

When asked about how their children must grow, all mothers preferred that their children must grow in a favourable atmosphere where rearing practices, parenting and socialisation are coincided with the Islamic values and way of life. In this respect, subject T mentioned that:

> "I would sincerely like to help my child grow in a religiously dedicated environment in order to acquire positive characteristics that will allow him to live peacefully with himself and his society" (S-T).

Explaining their perception about how children must grow, subjects M, N, O agreed that children must grow in the shadow of the Islamic values and way of life:

> "My children must grow according to the teachings and values of our religion and culture".

While subject P said that his children:

> "Must grow up in agreeable family conditions that offer proper feeding, and care activities" (S-P).

All fathers agreed that their children had to learn Qur'an and the basics of Islam whether in a nursery or Khalwa before proceeding to schools of modern education because this would help them develop their religious, intellectual, and social qualities.

> " I encourage my elder son to go to Khalwa but his younger brothers were allowed to go to nursery that used to teach the Qur'an. This is because I believe that they have to learn the Qur'an first in order to enjoin good religious, social and

educational experiences" (S-N).

With regard to the influence of institutions before going to schools, three mothers were enthusiastic to let their children go to Khalwa or nursery where Qur'an and the basics of Islam were taught. The reason behind this attitude came from one subject:

> "....because this will help them sense and develop their religious observance and broaden their minds in personal and social matters" (S-S).

Another subject added that:

> "I will let my children go to Khalwa to learn the basics of the Qur'an and teachings of Islam that will help them enhance their social abilities and train them to improve their memories" (S-U).

3.3.1.3.7. Parents View in Summary

Most of the parents valued the role of religion in determining healthy development, family life and child-care, and adjustment. However, compared to Sufis, some parents did not place as much emphasis on religion as important. Rather they recognised, in addition, the contribution of other social factors. In particular, parents believed that the process and meaning of development, family life, child-care, and sex differences were also well understood in the light of culture and dictations of social tradition. They expressed that they would like to see their children growing up in the Sudanese way of life. For instance, parents voiced the viability of the extended family and the role of grandparents in child-care as significant contexts of human development grounded in the Sudanese cultural ideal and where social conformity, sociability and intergenerational ties are promoted. However, there was a slight tendency among some parents aspiring to a modern outlook regarding marriage, family type, maternity and child-care.

3.4. Discussion

The aim of this study was to provide a window on the Sudanese mind concerning child-care and development. Four groups of Sudanese adults were interviewed about a number of areas related to this topic. In the record of what they said as revealed in the results a number of themes emerge and re-emerge. In this discussion the most important of these themes will be distinguished and drawn out. By doing this it will become possible to contrast models of normal and abnormal development in the Sudan with those found in Britain and other western countries.

3.4.1. Religion and Development

It is clear that the most powerful and pervasive theme running through the answers of all groups is the religious one. This is manifested in many ways in terms of observing religious commands defining the functions of development, parenting, rearing practices, parent-child relations and father-mother relations. In fact, at one extreme the ultimate aim of human development was exclusively defined as the remembrance of 'Allah' and effective interaction with society. In line with this finding, Abdal-Ati, (1979) postulates that religious inspiration, law and social order have shaped ideas about family processes and human development in Muslim communities. For instance Islam has emphasised securing of the physiological and psychological needs of children as essential means of development. In that Islam has clearly defined the role and functions of the family and the necessity of providing kindness, respect, guidance, and adequate living conditions including positive influence from the surrounding environment. In the Islamic conception of environment, all the social, the spiritual, and the physical aspects are equally important. If these conditions are satisfied this will pave the way for the child to develop and maintain his own 'Fitra' which helps him to do good and aspire for the realisation of the Divine.

3.4.2. Parents' Beliefs and Child-care Strategies

McGillicuddy-DeLisi (1982) found that parents' beliefs about child development states and processes were determinant of parental teaching behaviour. In the present study we found that Sudanese parents' beliefs, that spell out child development strategies and processes, are construed as a function of parents religious observance and cultural conformity. However, variability in Sudanese parents' religiosity and culturally related beliefs affected the degree of parental responsibility towards their children and would regulate the pattern and precision of child-care offered such as feeding, weaning, religious training, modelling, and socialisation.

The present findings could also be interpreted in terms of Stratton`s model (1990) about

parents` cultural beliefs and their effect on structuring children`s environments. Stratton described two levels of parental beliefs: General beliefs which include gender role, moral values, political and religious views, and concepts of development. And then specific beliefs that are associated with individual children's behaviour. The model supposes that processes of general beliefs will affect specific beliefs, which in turn determine the strategies of child-care and treatment. Stratton goes on to show that cultural values may operate in such a way that different kinds of treatment will have different outcomes. He illustrates this idea by an example from Rohner and Pottengill (1985) who found that what children learn from parental behaviours may differ according to cultural values. While American youths considered a high level of parental control as indicating hostility and rejection, Korean youths associated control with warmth and low ratings of neglect.

3.4.3. Socialisation of Sex Role

Regarding the concept of sex differences, all the subjects have shared the view that boys and girls should be treated equally until the age of seven years and then differently afterwards in order to qualify for their future roles. This view appears to stem from the religious belief which signifies that at the moral and value-orientation levels boys and girls are equally regarded (Ahmad, 1976). Moreover, a common belief among the respondents is that a girl should be trained to be a good mother whereas a boy has to acquire those qualities characterising a good man. This would imply that a boy should always adhere to his father and be brave, hardworking, helpful, decisive and tolerant. This is not surprising in the Sudanese culture where a dominant role is always expected from boys. This attitude is seemingly influenced by the tribal tradition rather than the religious belief because the tribe always glorify the dominant and resolute men while religion regards roles of both sex as equally significant.

3.4.4. Family Life and Family Structure

A second major theme that emerged from the present findings is that in Sudanese society, in contrast to the West, establishing a family and catering for family life is viewed as a religious and cultural necessity. On the one hand, the family is maintained as a Divinely inspired institution. It is the result of marriage between partners who share common views about life and want to lead their lives in a way that facilitates and promotes their "fitras". In fact in Islam, it is believed that relationship between family members, and most importantly between husband and wife, is not merely an utilitarian one. Rather it is a spiritual relationship that generates and maintains love, kindness, mercy, compassion and mutual confidence (Ahmad, 1976). On the other hand, marriage is seen as a bridge between different families, tribes and communities. Consequently, marriage helps widening the

horizons of the family and produces social cohesion in society.

Although it is difficult among the Sudanese people to think of family structure separately from the influence of religion, some sort of independent identification may also exist. In such a case, the extended type of family was considered by the majority of our subjects as having an advantage over the nuclear type by facilitating better living conditions such as physical proximity, social and psychological support and economic co-operation. In keeping with previous findings (Al-Awad, & Sonuga-Barke, 1992; Badri, 1979), the Sudanese extended family is thus regarded as a main vehicle of constructive socialisation for children and the embodiment of religious and cultural ideals.

In the West, particularly in the United States, although there exists a cultural precedent for the formation of extended families among certain ethnic groups, their persistence is often motivated by a need to cope with economic hardships, unemployment, extramarital birth, and divorce (Wilson, 1984). In the Sudan, however, the extended family is the traditional ideal motivated by a mix of religious and cultural ideals. Interestingly, despite the vast difference in factors underlying the formation of extended families in the United States and the Sudan, research on the extended family has confirmed its role in social stability and effective socialisation of children in both settings (Wilson, 1989; Al-Awad, & Sonuga-Barke, 1992).

3.4.5. Social Conformity

The Sudanese adults described the goals of development in social and communal forms rather than individual ones. The practical implications of this idea will leave little room for self-autonomy, instead social conformity is reinforced and demanded. This is not surprising in a traditional society where, parents are responsible to replicate the artefacts, symbols and signs of their culture, social conformity is expected to be central to child development. This approach obviously stands in sharp contrast to Western models of development where goals of development are understood in terms of developing individuality and promoting personal growth.

3.4.6. Filial Piety

Because social life in the Sudan is governed by ideals of communal interdependence and social conformity, filial piety and collective responsibility are well implanted in child during development and socialisation. For example, respect for elders seems important in defining good behaviour and indicates a person's readiness to integrate into his society. This cultural ideal, however, once again finds its ground in religious teachings. The Prophet Mohammad is reported to have said that it is very important for any Muslim to respect and be kind to the elders in our community (Badri, 1979). Regarding and maintaining a good level of inter-

social relations is a primary motivator for the individual`s concern for others, paving the way for social solidarity.

3.4.7. The Role of Grandparents in the Sudanese Society

Highly interconnected with the formation of the extended family and consistent with the Sudanese cultural ideal is the role of grandparents' involvement in child-care activities and socialisation (Al-Awad & Sonuga-Barke, 1992; Badri, 1979; Grotberg & Badri, 1992). Likewise, the present findings confirm that this role is considerably appreciated in the Sudanese community at least by our respondents. More specifically, the role of the grandmother in child-care and socialisation is not only deemed protective against psychosocial stressors, but may also serve as a source of information and advice about child-care and management for inexperienced mothers (Al-Awad & Sonuga-Barke, 1992). In addition, the grandmother might provide social and emotional support that increases parental efficacy and leads to a lower risk of emotional and behavioural problems of children (Goodman & Brumly, 1990). Moreover, the grandmother might function as an agent of cultural transmission and education through *huja*[1] to her grandchildren (Al-Awad & Sonuga-Barke, 1992). Finally, in traditional Sudanese households, the grandmother takes over the mother's chores while the child is being nursed, leaving the mother to develop an extremely close and intimate relationship with her child. The significance of this function can be seen from the fact that an insecure mother-child attachment during the first year of life increases the risk of later psychopathology (Lewis, Feiring, McGuffog, & Jaskir, 1984).

3.4.8. Westernisation/Secularisation in Models of Rearing Children

Two trends could be identified concerning this issue: The first is the strong viewpoint primarily initiated by Sufis and supported by some fathers and mothers who advocate the extended family, early marriage, and insist that parents should comply to the religious commands regarding child development and rearing strategies. The second trend was presented by some educated mothers and clinicians who did not prefer early marriage for females, supported the nuclear family and were less demanding of religiously based strategies for rearing children. They justified the promotion of the nuclear family type by stating that parents would be free to bring up their children without any influence from the grandparents. The lack of enthusiasm for early marriage by educated mothers might be connected to the increased influence of women liberation that rejects the traditional attitudes towards women. The parents' educational level might affect beliefs by virtue of greater

[1] The word 'Huja' in Sudanese Arabic means story-telling. It is known that grandmothers are the main source of this practice.

exposure to these influences reflected in the media or public debates.

3.4.9. Perception of Behaviour Problems and Modes of Treatment

It is generally held that culturally mediated beliefs, values, traditions, and associated child-rearing and socialisation practices may help outline both rates and types of child behaviour problems (see, e.g., Lambert, Weisz, & Knight, 1989; Rutter, 1987) and the kinds of problems parents perceive or find destressing (e.g., Weisz, Suwanlert, Chaiyasit, Weiss, Walter, & Anderson, 1988). In line with this approach, Sudanese adults' perceptions of behaviour problems, their causes and modes of treatment were explored.

Although the most frequent causes of behaviour problems perceived by the sample of the present study (bad family conditions, bad example, negative influence of the social environment (peers or neighbours), poor child-care, parental conflict and family discord,) coincided with Western or global perceptions, one cause (lack of religious awareness) did not. Interestingly, a considerable majority of the subjects related this situation to parents' failure to meet the religious standards necessary for healthy upbringing of children. In particular, Sufis who are the main representative and exponent of the traditional model explicitly attribute causes of childhood behaviour problem primarily to lack of religious awareness and observance. The good characteristics one would like to see in children's behaviour are interpreted in terms of the fruits of religious observance. The connection between religiosity and good behaviour is then seen like a plant and its fruits. In this connection, Al-Gazali, an ancient Muslim scholar and philosopher, is reported to have assumed that deficiency of spiritual feelings, initiated by irreligiosity, may incapacitate the healthy development of a person, and consequently put the child at greater risk for psychopathology (Siddik, 1985).

It is worth mentioning that ingratitude to parents is distinguished from disobedience and is considered as one of the more serious behaviour problems. Disobedience could be related to people in general whereas ingratitude is specific to parents and indicates a lack of religious awareness. It is clearly stated in the Qur'an that ingratitude to parents is one of the most abhorrent sins a Muslim could commit. One can easily sense the intrinsic connection between the religious theme and the concept of behaviour problems.

In attempting to alleviate children's problems, all subjects mentioned that they would first try themselves to help troubled children through advice, training and guidance. But in severe cases a majority of subjects stated they would seek help from Sufis and/or professionals. Thus, there is a strong tendency to accredit Sufis, along with clinicians, in the treatment of these behaviour problems. Even the Sufis, are clear in considering themselves one of the sources of treatment of these behavioural disturbances as they claim some insight into the behaviour of people in general. As a matter of fact, Baaher (1982)

reiterated this role by stating that besides their religious, social, and educational practices Sufis have also therapeutic functions. In so doing" *They apply their knowledge and skills within the sociocultural context and in close harmony with patients' and relatives' sentiments and expectations*"

Perhaps such a view has motivated the emergence of a trend initiated by Badri (a leading Sudanese psychologist, psychotherapist and a formerly UNESCO expert) and Baasher, (a leading Sudanese psychiatrist and WHO regional advisor) calling for the development of a Sudanese approach in psychological and clinical practice that accommodates the Sudanese and Islamic traditions, without contradiction, in modern practices of psychology and psychiatry in the Sudan and in other Muslim countries (Baashar, 1975; 1982; Badri, 1972; 1979).

3.4.10. Conclusion

In conclusion, right across the various sectors of the Sudanese society there is general consensus that religious and cultural beliefs regulate concepts of normal and abnormal development, mediate patterns of child-care, and outline directions for the treatment of behaviour problems. The practical implications of this research may be that it will increase our knowledge and understanding of normal and abnormal development among the Sudanese people as well as highlighting the importance of culture and religion in shaping ideas of development. Apart from the academic interest, this research may assist us in formulating policies, training and planning of mothering, child-care, social, educational, health and welfare facilities for the community. It may also intensify awareness among those people who provide services particularly those who may hold Western perspectives or have little understanding of the role of culture and religion in emotional and social development of children.

Although the benefits of conducting qualitative research to achieve a better understanding of the underlying beliefs that motivate the concepts of child development and strategies in the Sudan appears encouraging, there are a number of limitations that must be recognised. First, one limitation of adopting a qualitative approach in social research is that the context in which data are collected may shape the comments received. Second, most important in this respect are the characteristics of the interviewer, in particular his education and social background, his perceived attitudes to the respondents' category, his understanding to the relevant cultural and religious beliefs. The background of interviewers and the language used in the interview may affect responses to questions about normal and abnormal development. Third, although the research nature and aims were explained to all respondents who were assured of confidentiality before conducting the interview, some of them might be reluctant to express freely what they actually believed. Perhaps the

respondent is not fully conveying his attitudes or communicating only those he or she considers as most suitable and socially desirable. A Sufi, a teacher or a clinician for example might be influenced by people's perceptions of his position and role in the society. Finally, other factors such as gender, race and ethnicity, class and status, age and religion might also affect the respondents' comments. In particular, the issue of identity formation and perseverance whether it be religious, cultural or professional is pertinent. In the present interviews, respondents made frequent reference to religion and culture in defining the concepts and practices of normal and abnormal development. This frequent reference may convey their real attitudes but also could be seen as affirming their religious and cultural identity in the face of the reality of the Westernisation sweeping through their society.

CHAPTER FOUR

INTRODUCTION TO THE MAIN STUDY

The main study in this thesis was designed to investigate the structure of childhood behaviour problems in the Sudan and their associations with structural aspects of the sociocultural context of Sudanese society. This purpose will require (i) the development of an effective instrument for measuring the structure of childhood behaviour problems and (ii) examination of structural variables associated with family life and their associations with child-care and behaviour problems in the Sudan. To satisfy these requirements this chapter will review:

(i) A previous study (Al-Awad and Sonuga-Barke, 1992) as the foundation for the present study,

(ii) Measurement of childhood behaviour problems in cultural contexts

(iii) The ecology of child-care and development with special reference to Sudan

4.1. Background: The Al-Awad & Sonuga-Barke Study (1992)[1]

Because the main study in the present thesis was inspired by and based on a previous study conducted by Al-Awad and Sonuga-Barke (1992), it was felt important to present a detailed review of this study in order to introduce the reader to the nature of the issues raised in the present study.

4.1.1. Aims

The primary aim of the study reported by Al-Awad & Sonuga-Barke (1992) was to examine the relationship between the socio-emotional development of children and family structure in the Sudanese capital Khartoum. It was motivated by academic and public concerns over the effects of the functional and structural changes that the Sudanese family is witnessing in response to rapid social and demographic change. Traditionally, the Sudanese family has been extended in nature and embedded within the wider communal structure of the tribe. In this situation, the authority of household management usually rests on the grandfather. The grandmother (or *Haboba*)[2] plays a central role in child-care and the transmission of cultural values to her grandchildren. Although variations of this extended family structure still dominate social life in rural areas, in the city a sizeable number of

[1] This study was published in Child Development, 63, 906-914

[2] Haboba in Sudanese Arabic means grandmother. It is a derivative from the word 'Hob' which denotes love.

families are now based on the nuclear units prevalent in Western countries. Abdelrahman and Morgan (1987) have reported that approximately 50% of families living in Khartoum between 1945 and 1975 adopted a nuclear family structure. Like many trends in the social life of developing countries, the shift from the extended to the nuclear family has been motivated by a combination of factors. The cultural and political influence of the West coupled with urbanisation and industrialisation have contributed to the emergence and increase of nuclear families in urban Sudan. Thus, the study hypothesised that some of these changes in family life experiences might have led to an increase in the levels of psychosocial stress experienced during childhood. More specifically the study attempted to answer the question whether the emergence of the nuclear family constitutes an important influence on child development in Sudanese cities.

4.1.2. Sample

The sampling frame for the study was a representative sample of 4 to 9 year-old children living in Khartoum. Because of the rural-push and the urban-pull Khartoum population reflects the diversity of tribal and religious identity of the Sudanese people. Two hundred and ten households were selected from twenty-two districts. Of these, 100 had a nuclear and 110 an extended family arrangement. Although social class variations are less clear-cut in the Sudanese society than in many industrialised societies, variations in educational and vocational attainment do exist. These distinctions in vocational status have been regarded as reliable indicators of socio-economic status in previous research (see Abdelrahman and Morgan, 1987). The families in this study were chosen so as to control for differences in vocational status across nuclear and extended households. From these families children were selected on the basis of age and sex. To ensure the cultural sensitivity of the items comprising the instrument used for measuring dimensions of childhood adjustment, initial interviews were carried out with clinicians working and mothers living within the area of study. These interviews and discussions were broadly structured around the eight categories of childhood psychiatric problems suggested by Ross (1980): overanxious/withdrawn, unsocialised aggressive, minor developmental disorders, school phobia and truancy, overactivity and social withdrawal, attachment, depression, and speech difficulties. A 42-item, three-point, likert-type questionnaire scale was finally constructed and completed by parents to provide information about their children's adjustment and development. The mothers were also asked a range of demographic and child-care factors.

4.1.3. Analysis and Results

The data were factor analysed to a principal components solution and an eight-factor solution was derived (see Table 1). Because of the item loadings, these factors were called: conduct disorder, neuroticism, dependence, anxiety/sleep problems, fearfulness, poor self-care, language problems, and isolation. The authors reported that, in general, this factor structure confirmed the distinctiveness of the constellation of problems associated with externalising and internalising problems found during questionnaire studies of childhood problems in a number of different cultures. However, in this study there was just one externalising problem factor, conduct disorder. The authors justified this by the fact that there were no items measuring impulsiveness, and inattention included in the questionnaire. Factor weights were calculated and scores were derived for each behaviour problem factor. The mean scores obtained by children living in extended and nuclear families were compared. Unrelated *t* tests (two-tailed) revealed that children living in extended families had fewer conduct problems, were less neurotic and dependent, had fewer sleep problems and better self-care, and were less isolated.

Table 1. The Factor Structure and Loadings Derived from the Childhood Behaviour Questionnaire (Source: Al-Awad & Sonuga-Barke, 1992).

Factor	**Loading**
Factor 1: Conduct disorder (23% of original variance):	
Verbally aggressive	.73
Disobedient	.71
Quarrelsome	.65
Physically aggressive	.57
unmotivated at school	.52
unhelpful at home	.48
Has poor peer relations	.47
Unplayful	.46
Destructive	.46 .44 (factor 5)
Overactive	-42
Factor 2: Neurotic (7% of original variances):	
Bites nails	.80
Sucks thumb	.78
Walks during sleep	.66

Table 1 Cont.

Table 1 Cont.

Wets bed	.56 .46 (factor 6)
Has temper tantrums	.44
Factor 3: Dependence (5% of the original variance)	
Is overdependent	.72
displays separation anxiety	.66
Fights with peers	.51
Factor 4: Anxiety/sleep (4% of the original variance)	
Cries	.69
Is shy	.65
Has bad dreams	.64
Wakes during night	.60
Nycrophobia	.44 .41 (factor 5)
Factor 5: Fearfulness (4% of the original variance)	
Acrophobia	.71
Claustrophobia	.68
Agoraphobia	.65
Nycrophobia	.41
Factor 6: Poor self-care (4% of the original variance)	
Is unclean	.69
Is difficult to feed	.55
Is lazy	.49
Factor 7: Language problems (3% of the original variance)	
Stutters	.69
Lisps	.55
Language delay	.49
Factor 8: Isolation (3% of the original variance)	
Prefers to be alone	.57
Spends nights away from home	.47
Wanders aimlessly	.43
Unhappy.	.41

The relationship between the vocational, educational, and child-care practices of the entire sample were examined. Fathers' education correlated positively with fathers' occupation (r= .67), mothers' education (r=.52), and the level of school attendance (r=.27) and negatively with age at weaning (r=-.26). Mothers' education positively correlated with fathers' occupation (r=.48) and school attendance (r=.23). Grandmothers' involvement correlated positively with levels of breast-feeding (r=.30). Breast-feeding correlated

positively with age weaned (r=.35).

Parents from the two types of families had similar levels of vocational and educational achievement. Although there were no differences between the two groups in terms of the amount of time the mothers reported spending with their children, the frequency with which their children went to school, or the extent to which physical punishment was used as a means of discipline, children growing up in the extended families tended to be breast fed, weaned later, and to have more involved *habobas*.

To investigate the relation of these three factors, they, along with father's level of occupation (one index of social class), were introduced as predictor variables into eight multiple regression analyses, with the eight childhood problems factors as the criterion variables. The majority of the eight multiple regression model accounted for significant proportions of the variance in the specific criterion measures: poor self-care (31%), neuroticism (19%), sleep problems (12%), isolation (7%), fearfulness and overdependence (6%), language problems (3%).

Turning to examine the contribution of each predictor variable, the predictive value of the grandmother's involvement in child-care was strikingly observed. Higher levels of conduct problems ($p < .05$), neuroticism ($p < .005$), dependence ($p < .05$) sleep problems ($p < .005$), and poorer self-care ($p < .001$) were associated with low level of grandmother's involvement. In addition, breast-feeding tended to be associated with less fearfulness ($p < .05$) and later weaning with better emotional adjustment ($p < .05$).

4.1.4. Discussion

The results indicated that Sudanese children living in traditional extended family showed better adjustment than their counterparts who were brought up in nuclear families. Living in nuclear families was associated with more behavioural, emotional, and sleep problems; overdependence, and poorer overall self-care. In particular, the results point to the role of the grandmother in child-care and socialisation as a protective characteristic of extended family life that might mitigate the risk associated with urban residence. This protective value may stem from several factors. First, it might be due to the advice and information about child-care and development provided by the *Haboba* to the inexperienced mother, particularly when the child is ill or disadvantaged. Second, education in cultural practices and ideals of conduct provided by the grandmother during *huja* may reinforce cultural moral norms and reduce the risk of psychopathology in children. Third, the *haboba,* along with other relatives in the extended family, might provide social support that reinforces maternal psychological well-being, enhancing parental efficacy, leaving room for more child-mother attachment, and so leading to less risk of emotional and behavioural problems. Fourth, the grandmother involvement might also modify the effects of maternal psychpathology more directly. When the mother is

already showing signs of psychiatric problems, the grandmother would be available to take over the child-care responsibility and so provide the child with security and discipline that the mother is unable to offer. However, the authors had pointed out that the results of this study might be affected by systematic bias in mothers' reportings due to variations in education, in parental perceptions to childhood deviance, or in standards of conduct deemed acceptable by them. In addition, the relation between child development and family structure reported in the study might be mediated by the effects of stressful life events such as migration, displacement, or loss of kinship. It was also suggested that other factors such as religious practice and beliefs, norms of child development and family functioning, approaches to the resolution of marital conflicts-factors not related to the extended family per se but to the traditional culture in which it is embedded - that need to be taken into consideration if a systematic account of the protective role of the extended family is to be developed.

4.1.5. Setting the Rationale and Prospects of the Current Main Study

It is obvious that the previous study of 1992 limited itself to examining the effects of the Sudanese family structure on child development and behavioural deviance. In this respect it can be said that the study has accomplished its aim by identifying patterns of childhood psychopathology and their associations with family structural variations. However, the findings have suggested that besides family structure, understanding the effects of the wider socio-cultural context in determining childhood behaviour problems is needed. In response to that need the present study was designed to investigate the various socio-demographic, cultural and religious influences on Sudanese children's behaviour problems.

Although the behavioural scale used in the previous study has proved useful in identifying both narrow and broad-band description of behaviour problems, it was felt inadequate for the purposes of the current study for three reasons. First, there were no items to elicit enough information about social, cultural, and religious practices. Second, there were no items measuring hyperactivity (impulsiveness, and inattention) included in the questionnaire. Third, it was designed to be filled in by parents only and had no version to be filled in by teachers so it would not satisfy the aims of the present study in identifying and measuring behaviour problems judged by different informants. It was also deemed particularly important to get a view of behaviour problems from a source independent of the mother who was also providing the background information. These limitations have prompted the development of new instruments as a basic requirement for the present study.

4.2. Measuring Childhood Behaviour Problems

Before an effective instrument for measuring the structure of childhood behaviour problems in the Sudan can be developed (which is the aim of the next chapter) it is vitally important, at this stage, to have an idea about how behaviour problems are quantified. It is also important to have an overview of the nature and structure of some of the valid and reliable instruments that are universally employed to measure childhood behavioural deviance. These were the aims of this section. Exploring the impact of the socio-cultural contexts in which these instruments are developed and used and whether this impact would affect their cross-cultural validity was another important aim of this section.

Traditionally, researchers have relied upon information obtained from significant adults about children's behaviour. There are two reasons for this. First, it is recognised that children do not present themselves for treatment but rather are the subject of parents' and teachers' complaints (Yule, 1981; Sonuga-Barke, Balding & Thompson, 1995). Second, for most types of behaviour problems, it has been shown that examination and interview with the child add little to the identification of the problems (Rutter & Graham, 1968).

Investigators (e.g., Achenbach, 1980; Rutter, 1970; Quay, 1977) believe that adequate assessment of adult perceptions of childhood behaviour problems depends on a number of characteristics. These were recently summed up by Verhulst (1995).

(i) Standardisation is needed for an instrument to facilitate comparison of findings from different studies, different locations, and different times of data collection.

(ii) A normative approach (i.e. the child's behaviour be compared with that of children in a reference group of the same age and sex) is essential for testing the generalisability of findings.

(iii) Multiple informants are needed to provide information about children under different conditions and in different situations.

Two methods have been widely adopted in order to assess parent's perceptions of their children's behaviour; the structured clinical interview (Angold, 1989) and the behaviour rating scales (Rutter, 1967). Both of these methods allow children to be assessed by a variety of individuals including teachers, parents, and psychological professionals. However, while interviews may provide a more objective and fine grained analysis of the child's problems most suitable for clinical diagnosis, behaviour rating scales are more likely to fulfil Verhulst's (1995) criteria. In addition, Aman, Werry, Fitzpatrick, Lowe & Waters (1983) have described four attributes of rating scales that make them attractive for the present study.

(i) They are simple, feasible, and usually readily accepted by raters. Rating scales involve the rater simply checking a box next to a series of statements about the existence of a behaviour problem in a way that indicates the severity of that problem.

(ii) If they are well constructed, they emphasise concrete and specific aspects of behaviour.

Although this cannot remove elements of subjectivity completely, the use of large numbers of items usually provide scale scores which enjoy sufficient reliability for clinical and research aims.

(iii) They are essentially problem oriented in the sense that they define problems of concern to those who take children to psychological and psychiatric services.

(iv) Such devices have been shown to have considerable validity as diagnostic and epidemiological tools.

In addition, questionnaire rating scales are reported to have a special importance when used for screening or survey objectives. For instance, Rutter, (1967) observed that questionnaires completed by teachers are very useful devices not only because school teachers have the opportunity to observe and compare large numbers of children but also because they are in a position to comment on the practical importance of the child's behaviour in relation to school performance. Parents' reports too are useful and can complement those of the teacher. Indeed a large number of studies have shown that individual problem behaviours are recognised by teachers and parents, with much consistency across different cultures and social groups (e.g., Taylor & Sandberg, 1984).

Furthermore although rating scales are often composed of many items and cover the full range of behavioural constructs of interest, the standardised nature of such scales allows factor and cluster analyses to explore item structure. This in turn allows items loading on particular factors to be summed to produce scores for subscales indicating specific problem areas (Tabachnick & Fidell, 1989). Factor scores are continually more reliable than individual items (Yule, Urbanowicz, Lansdown & Millar, 1984). In this respect, multivariate analysis of behaviour problems reveal consistencies in the identification of broad-band patterns (externalising vs. internalising) and more numerous narrow-band syndromes (e.g. hyperactivity, conduct problems, neurotic symptoms, depression etc.) in spite of differences in specific items present on different instruments (Achenbach & Edelbrock, 1984). These different levels of differentiation may meet different aims. For instance, the general distinction between broad-band problems may be useful for general management purposes. By contrast, narrow-band hyperactive, delinquent, aggressive, depressed, somatic and anxious syndromes, may provide a better basis for detecting specific causes and prescribing specific treatments (Achenbach & Edelbrock, 1984). In addition, the internalising-externalising dichotomy clearly accords well with a known distinction among global behaviour patterns in disturbed children. Despite receiving different labels, such as "acting out vs. over inhibited" and "personality problems vs. conduct problems", a similar dichotomy has been identified in numerous empirical studies of intercorrelations among child behaviour problems (Achenbach, 1980). Categories or syndromes based upon empirically derived classification, particularly the broad-band internaliser-externaliser distinction, have also been found to relate to

differences on a variety of demographic, psychological, behavioural and social variables (Achenbach, 1978). Achenbach (1980), for example, reported that Hafner (1975) had found that externalisers had worse academic records, completed fewer grades, were less likely to finish higher schools, had fewer friends, and received poorer mental health ratings. Furthermore, parents of Externalisers have been found to differ from parents of Internalisers in being less strict with their child and less concerned about the child's problems, and in having more overt social problems, more marital separations and more overall pathology (Achenbach, 1980). In addition, factor structure can also be explored to examine the differences and relationships between ratings patterns of psychologically disturbed children by different raters (Touliatos & Lindholm, 1981), as well as adults living in different cultures (Reid, 1995). Rating scales have also been useful in exploring systematic biases in raters' perceptions of behaviour problems and the level of priority given to behaviour problems by identifying subscales. For instance, Sonuga-Barke, Minocha, Taylor & Sandberg, (1992) compared teachers' ratings of Asian and English children with their actual levels of behaviour and identified a tendency of teachers to overestimate activity in the Asian children.

For all these reasons behaviour problem rating scales have gained considerable popularity in the psychiatric literature, particularly in the area of childhood behaviour problems (Achenbach, 1980). In keeping with this body of literature the present study adopts a ratings scale approach to the measurement of Sudanese children's behaviour problems. Although the general interest in screening of children for behavioural problems has stimulated the development of numerous instruments, a number of these have been studied in great detail in terms of factor structure, psychometric characteristics and psychological correlates (Achenbach, 1978; Quay, 1979). In the following section examples of frequently used parents' and teachers' rating scales will be reviewed.

4.2.1. The Development and Use of Behaviour Rating Scales

4.2.1.1 Using Rating Scales to Assess Parents' Views of Behaviour Problems

Parents play a central role in both the cause of their children's behavioural, emotional and personality problems (Holden & Edwards,1989), as well in the referral of those problems to specialist services (Sroufe & Rutter, 1984). A basic research strategy has been to use parent's reports to identify childhood behaviour problems. In order to do this a number of scales have been developed. In what follows the characteristics of four such questionnaires will be reviewed. This review is not intended to be exhaustive but to give an idea of the sorts instruments available, their structure, psychometric properties (reliability & validity) and what the correlations between items reveal about the nature of childhood problems.

4.2.1.1.1 The Behaviour Problem Checklist (Quay & Peterson, 1975).

The Behaviour Problem Checklist (BPC) was developed by Quay & Peterson (1975; see also Quay, 1977). The BPC consists of items derived from a study by Peterson (1961) who chose common symptoms from the case records of a University child guidance clinic. These were then refined using factor analysis into 55-items. Using a three-point scale, parents were requested to fill in the questionnaire which asked them to state whether any of 55 symptoms was present in their child's behaviour to a mild or severe degree. Principal components analysis of the scale revealed four separate subscales. These were Conduct Disorder, Anxiety-Withdrawal, Inadequacy/Immaturity and Socialised Delinquency.

The BPC has been the subject of considerable statistical analysis and validation in terms of the demographic, social, cognitive, and psycho-physiological correlates of behaviour problems (Quay, 1977; Quay, 1979). Investigators reported that the concurrent validity of the scale was established by successfully differentiating between children's behaviour in regular and special classes (Lindholm &Touliatos, 1976) and distinguishing clinic-referred children from their siblings (Carlson & Lahey, 1983). Although modest correlations between parent and teacher ratings have been obtained (Quay et al., 1975), test-retest reliability over two weeks intervals has been found to range from .82 to .98 (Evans, 1975). While some studies had supported the validity of the instrument, its authors thought it suffered from two major limitations that it shared with many other scales of the sort. First it excluded two essential clinically recognised dimensions, notably psychotic behaviour and hyperactivity. Second it had a small number of items on some of the dimensions (e.g., Immaturity and Socialised Delinquency) which reduced the reliability of these scales. To overcome these weaknesses, Quay and Peterson (1979) compiled an experimental scale in 1979 by adding new items to the original 55 to end up with the development of the Revised Behaviour Problem Checklist (RBPC). The revised scale consists of 150 items which yield four factors described as 'major' and two described as 'minor' reflecting both the externalising and internalising dimensions of behavioural problems. Interestingly Quay did not report a distinction between hyperactivity type problems and those associated with antisocial behaviour. Kelly, (1981) conducted a study on a population of delinquent adolescents to evaluate the inter-rater and test-retest reliabilities of the R BPC and reported reliability coefficients of .50 and .71 for inter-rater and test-retest reliabilities respectively.

4.2.1.1.2. The Parent Behaviour Questionnaire (Rutter, 1967)

The Rutter Child Scale A was developed by Rutter in 1967 to be completed by parents to discriminate between different types of behavioural and emotional disorder as well as to identify children with or without these disorders. It consists of 31 items covering a wide range of problems of both an internalising and externalising nature. The parent is asked to

indicate for each problem whether it "certainly applies", "applies somewhat", or "doesn't apply" to the child aged nine to 12 years. These indications are scored 2, 1, and 0, respectively. The individual items are summed to produce a total score with a range of 0-62. In addition, the scores of certain items are summed to obtain neurotic, and antisocial sub-scores. A score of 13 points or more on the total scale is considered to show evidence of some disorder (Rutter, 1967). The test-retest reliability of the scale was reported to be .74; and the inter-rater reliability was found to be .64 (Rutter, 1967). The validity of the questionnaire was assessed by demonstrating its power to discriminate between neurotic children and antisocial children; in this there was 80% of agreement with clinical diagnoses (Rutter, 1967). The Questionnaire has been used in different populations of children in a number of studies (Rutter, Tizard & Whitmore, 1970; Rutter, Cox, Tupling, Berger. & Yule, 1975).

McGee, Williams, and Silva (1985) conducted a factor analytic study and obtained a four-factor solution. These were given the titles: Inattention, Antisocial behaviour, Hyperactivity, and Worry-fearfulness. The authors concluded that this factor structure was quite similar in terms of item composition to that obtained from the teachers ratings as assessed by scale B (see McGee, et. al, 1985).

The Rutter scale has been adapted to make it suitable for pre-school children. The Pre-school Behaviour Questionnaire (Behar & Stringfield, 1974; Behar, 1977) has been used for the identification of pre-school behavioural and emotional problems (Behar & Stringfield, 1974). Although initially developed as a teacher rating scale, the PBQ has proven useful with parents as informants (Campell & Breaux, 1983; Gray, Clancy, & King, 1981; Hagekull & Bohlin, 1994). It consists of 32 items on a three-point scale standardised on a sample of normal and emotionally disturbed pre-school children in the US. The PBQ discriminated significantly between the deviant and the normal groups. Behar and her colleagues in their initial study reported that the PBQ had demonstrated sufficient criterion validity (.73) and both inter-rater (.97) and test-retest (.98) reliabilities. they also identified three factors (Behar & Stringfield, 1974); which they named Anxious -Fearful, Hostile-Aggressive and Hyperactive-Distractible (Behar & Stringfield, 1974).

More recent work with the PBQ supports this three dimensional structure with a strong relationship between the hostile/aggressive and the hyperactive/distractible items (Rubin & Clark, 1983). In a more recent study in Sweden, Hagekull & Bohlin, (1994) using the PBQ explored the dimensionality of parental ratings in a sample of over 300 children. The authors concluded that a Swedish translation, with a modified response format but still using parents as informants, there was the two broad-band syndromes, (i.e. externalising and internalising), described by other researchers. Although the statistical criteria favoured this two-dimensional structure, the investigators considered that a split of the externalising dimension into two scales, reflecting aggressive conduct disorder problems and

hyperactive behaviour problems, would still give a meaningful and homogeneous measure (Hagekull & Bohlin, 1994). This factor structure was strikingly similar to that derived from the original Rutter scale (Rutter, et al., 1970) and shared many features of other pre-school scales (Richman, Stevenson & Graham, 1980).

4.2.1.1.3. The Child Behaviour Checklist (Achenbach, 1978).

It has been suggested that the most widely used and popular problem report measure filled out by parents is the Child Behaviour Checklist (CBCL) developed by Achenbach (McMahon, 1984). This scale follows a normative-developmental approach by recording empirically derived behaviour problems and competencies for specific age groups (Daugherty & Shapiro, 1994). Most of the behaviour problems were adapted from Achenbach's (1966) factor analytic study of case history data but were reworded to make them more appropriate for parents. The parent version of the CBCL is designed for children aged 2-3 and children aged 4-18. It includes questions about child and parent demographics, the child's competence in school and elsewhere, and a list of 118 specific problems on a 3-point scale. It also contains two open-ended items concerning other physical problems. Parents are asked to rate their children's behaviour in the following way: a 0 if the problem is not true of the child, a 1 if the item is somewhat or sometimes true, and a 2 if it is very true or often true. A total problem score is computed by summing all 0's, 1's and 2's (Achenbach & Edelbrock, 1978). The test-retest reliability of these problem over 1 week interval was high (.97; Achenbach, 1978). Other forms of reliability (inter-parent agreement, .74) and discriminative validity (demonstrating significant differences between normal and clinical subjects) of the CBCL have been documented and support the usefulness of the instrument (Verhulst, 1995). Specific syndrome scales for this instrument were empirically derived through factor analyses of scores obtained from parents. For each sex/age group, a number of narrow-band syndromes were quite similar for different age-ranges with both sexes. Factor analysis yielded 8 syndromes designated as Withdrawn, Somatic Complaints, Anxious/depressed (Internalising categories), Delinquent Behaviour and Aggressive Behaviour (Externalising categories), Social Problems, Thought Problems, and Attention Problems. In addition, second-order factor analyses of narrow-band scales supported the two broad-band groupings of externalising and internalising syndromes found with other scales (Verhulst, 1995). Versions of the CBCL have been translated into 25 languages and used in over 450 published studies (Achenbach, Conners, Quay, Verhulst, & Howell, 1989). A new edition of this scale appeared in 1991 in which included minor changes in wording, provision for coordinating data from multiple informants and small changes in the scoring profile.(Daugherty & Shapiro, 1994).

4.2.1.1.4. The Conners Parent Rating Scale, (Conners, 1970).

The Conners Parent Rating Scale (CPRS) is also among the most widely used instruments for clinical and research applications with children because it is easy to apply and there is good evidence for its discriminative validity (Wicks-Nelson & Israel, 1991). In that, the CPRS discriminates between normal and hyperactive children and appears sensitive to drug treatment effects. It also has a stable factor structure (Conners, 1973; Sandberg, 1980). Having been used in hundreds of clinical and experimental research studies since its initial development, the validity of the CPRS has been well established applying a number of different methodological techniques (Conners, 1990). Conners initially developed a 93-item parent rating scale. These items were rated with four responses (not at all, just a little, pretty much, very much). Responses were coded as 1, 2, 3, 4. Analysis of the scale revealed eight factors. These were Conduct Problems; Learning problem; Psychosomatic; Hyperactive-Immature; Anxious-Shy; Restless-Disorganised; Obsessive-Compulsive; and Antisocial Behaviour (Conners, 1970; Conners, 1990). Norms were based on a sample of children aged 6 to 14 years. The questionnaire was also found to be useful in distinguishing the broad-band dimensions of behaviour problems (externalising vs. internalising) discussed earlier. A relatively stable factor structure was reported across a number of studies (Conners, 1973; Werry, Sprague, & Cohen, 1975). Test-retest reliability over one year was found to range from .40 for the Psychosomatic factor to .70 for Hyperactive-Immature factor (Conners, 1990).

The original 93-item scale underwent a major modification by Conners in 1978 which led to a 48-item scale. The new revised scale was reported to have retained the main features of the original one (Conners in 1978). This revised scale yielded a five factor structure. The factors were Impulsive-Hyperactivity, Learning Problems, Conduct Problems, Psychosomatic Problems and Anxiety (Goyette, Conners, and Ulrich, 1978). Although no specific test-retest scores have been reported on the CPRS-48, Conners has assumed that it would have similar reliabilities to those of the CPRS-93 and the Conners teacher scale (see Conners, 1973).

Interestingly, Achenbach & Edelbrock (1983), reported a study that compared the CPRS and the CBCL in a group of referred boys. Achenbach's (1978) Externalising and Internalising scores correlated .81 and .62 with scores on Conners' (1973) Conduct Problem and Anxiety factors, respectively. Achenbach's narrow-band scales that corresponded to the CPRS scales Conduct, Anxiety, Hyperactivity, Psychosomatic and Antisocial factors correlated with the CPRS (i.e. scores ranging from .39 to .78, with a mean of .62; Achenbach & Edelbrock, 1978). The results of this study indicate that the two questionnaires show a good degree of agreement over both broad-and narrow-band scales of behaviour problems.

4.2.1.2. Using Rating Scales to Measure Teachers' Views of Behaviour Problems

After parents, teachers are considered the most important source of information about children's behaviour problems (Milich & Loney, 1992; Rutter, 1970). This is because although they are far less familiar with each particular child they have much more information about the age appropriate behaviour of children generally and so are in a position to make culturally appropriate judgements about dysfunctional behaviour. In addition to this, performance at school is particularly important in determining the child's future prospects and so even problems limited to school will still be of clear development significance (Lambert & Sandoval, 1980). Achenbach & Edlebrock, (1986) emphasised the importance of teachers reports for the following reasons:

(i) School is a vital developmental field in which problems arise that may not be clear elsewhere.

(ii) School-based social and academic skills are essential for successful adaptive development in the wider society.

(iii) By virtue of training, experience and opportunity of observing children in groups, teachers are able to reports aspects of children's functioning not evident to parents.

(iv) Teachers' reports are not likely to be affected by family dynamics, although they are affected by the interpersonal dynamics of the school environment.

(v) Teachers are often concerned with and involved in the referral and assessment of children for special services both within and outside the school.

4.2.1.2.1. The Teachers' Behaviour Questionnaire (Rutter, Tizard & Whitmore, 1970).

The Rutter Child Scale B was developed by Rutter, Tizard & Whitmore in 1967 to be completed by teachers to complement the scores derived from the PBQ. It was primarily designed to identify clinically significant behavioural disturbances among large groups of children with sufficient accuracy to examine possible relationships with physical, social and cognitive factors. It consists of 26 items that span the same range of problems as the parent scale. The Questionnaire was reported to have satisfactorily achieved this aim for investigations carried out in the Isle of Wight study (Rutter et al., 1970) and in a number of subsequent studies (Rutter et al., 1975; Rutter et al., 1976). The questionnaire has been used in over 80 studies in many different countries (Elander & Rutter, 1996). Both validity and reliability of the scale are well established (Rutter, 1967; Rutter et al., 1970; Rutter, Cox, Tupling, Berger & Yule, 1975). The product-moment of the test-retest reliability was .89 and the inter-rater reliability was .72 for the total scores (Rutter, 1967; Rutter et al., 1970). However, the most noticeable strengths of the scale are brevity and simplicity, which make it highly cost effective in very large samples and where children need to be selected for more intensive assessment (Elander & Rutter, 1996). In terms of validity, the

discriminative power of the scale was tested by comparing the scores of children in the general population with the scores of children attending psychiatric clinics for behavioural or emotional problems (Rutter et al., 1967). For a more accurate assessment of validity, the scale's power to discriminate between neurotic and antisocial children was tested. For about 90% of antisocial children and 80% of neurotic children the questionnaire diagnoses and the clinical diagnoses were in agreement (Rutter et al., 1967.) Although the scale satisfactorily discriminates between conduct and emotional disorders, it also shares with other questionnaires of its kind the common characteristic of not being able to differentiate between specific types of emotional disorders (e.g., depression versus generalised anxiety, Rutter et al., 1967).

Factor analytic studies of the Rutter Scales have shown the characteristic distinction between externalising problems and internalising problems (Rutter, Tizard & Whitmore, 1970) with some support for the distinction between conduct problems and hyperactivity. Schachar, Rutter & Smith, (1981) had re-analysed the original Isle of Wight data of the scale and found that a hyperactivity factor emerged independent from aggressiveness in several principal component analyses. However, Venables, Fletcher, Dalais, Mitchell, Schulsinger, & Mednick (1983) examined the factor structure of the Rutter teacher scale in a primary school population in Mauritius and reported two factors, hyperactive-aggressive; and worry-fearful. The investigators considered these findings to be consistent with those studies that were able to identify one single factor denoting hyperactivity and aggression when the data involved a predominantly normal group (Venables et al., 1983).

4.2.1.2.2 Teacher's Report Form (TRF; Achenbach & Edelbrook, 1981)

Similar to the (CBCL) in its format and profile, this scale has also been developed by Achenbach to be completed by teachers. It is designed to get teachers' reports of their pupil's problems and adaptive functioning in a standardised fashion which allows for a comparison of sex and age differences. The teacher is asked to rate a child on 113 behaviour items using a 3-point scale for each item. Social or adaptive competence is assessed through a series of items that evaluate the degree and quality of the child's involvement in activities (e.g., sports & hobbies), social interaction (e.g., through organisations and peers), and school history (Daugherty & Shapiro, 1994). The TRF has been shown to differentiate, with a good degree of precision, between psychiatric-referred and non-referred children and it has demonstrated a good concurrent validity when compared with the Conners Revised Teacher rating Scale (Edlebrock, Greenbaum & Conover, 1985). Test-retest reliability over intervals ranging from one week to four months was between .64 and .89 and inter-rater reliability for teachers was found to be reasonably high (Edelbrock & Achenbach, 1984). Factor analysis of the TRF for 450 boys referred to mental health services showed eight reliable factors, labelled Anxious, Social

Withdrawal, Unpopular, Self-destructive, Obsessive-Compulsive, Inattentive, Nervous-Overactive, and Aggressive. Second-order factor analysis yielded the usual two broad-band syndromes: Internalising and Externalising (Achenbach & Edelbrock, 1984). By Employing the TRF with clinically referred and nonreferred 4-16-year-old children, Achenbach & Edelbrock, (1981) were able to identify externalising and internalising behaviour problems across gender, SES, and race. Problems were reported more frequently for lower SES children and for boys with undercontrolled, externalising behaviours, whereas the problems reported most frequently for girls tended to be overcontrolled, internalising behaviours. Describing it as a sound psychometric instrument for the assessment and classification of behaviour and emotional problems among children, Harris, Tyre, and Wilkinson, (1993) employed the TRF in samples drawn from primary and junior schools in South Wales and reported substantial support for its validity.

4.2.1.2.3 The Conners' Teacher Rating Scale (Conners, 1969, 1973)

The Conners Teacher Rating Scale (CTRS) was developed to complemented the CPRS and it was originally developed by Conners in 1969 to be used in drug studies with children (Eisenberg & Conners, 1971; Luk & Leung, 1989). The CTRS in its original complete form consisted of 39 items rated on a four-point scale covering three aspects of behaviour: classroom, group participation, and attitude towards power. Normative data were reported on a sample of 9583 Canadian children aged 4 years to 12 years (Conners, 1990). Although Conners did not claim that this scale was a diagnostic tool, it, like the CPRS has been very popular as a measure for common behaviour problems such as anxiety, hyperactivity and conduct disorders (Luk & Leung, 1989; Barkley, 1988). Conners, (1969) reported a factor analytic study in which he identified five primary factors. From these, four factors (Conduct Disorder, Inattentive-Passive, Tension-Anxiety, and Hyperactivity) were very similar to those derived from CPRS. Conners' sample consisted of children with behaviour problems who were admitted to a clinic to receive psychopharmacological treatment. Several studies have been reported that replicate its factor structure in normal and clinical populations (Taylor & Sandberg, 1984; Thorley, 1983). While there is clear evidence that this scale differentiates between hyperactivity and conduct problems (Trites, Blouin, & Laprade, 1982; Luk & Leung, 1989), it was reported that in most of studies using CTRS there was a heavy overlap of items loading on these subscales. Conners (1969) reported that the range of correlations from .70 to .90, for test-retest stability. The scale factors showed satisfactory stability with reliability coefficient ranging from .35 to .57 (Barkley, 1988). Studies on the CTRS suggest that the scale possesses acceptable levels of temporal reliability (Conners, 1990).

With respect to validity, CTRS satisfactorily differentiated between behaviourally deviant and normal groups of children (Taylor & Sandberg, 1984). In addition, Arnold,

Barrebey, and Smeltzer, (1981) observed that the response frequencies and mean ratings found on the CTRS for the nonclinical sample differed considerably from those originally reported by Conners in a clinical sample. The concurrent validity of the CTRS had been frequently demonstrated through findings of significant correlation with other rating scales including the Behaviour Problem Checklist (Arnold, et al., 1981) and the Child Behaviour Checklist (Achenbach & Edlebrock, 1983). In general, the validity of the CTRS as a screening measure for hyperactivity, inattentiveness, and defiance has been supported by research that has demonstrated a high degree of association between observed and rated behaviours (Conners, 1990). In 1978 the original 39-item scale was reduced to 28 items, producing CTRS-R and most of the items retained are similar to the original ones with slight rewording (Goyette et al., 1978). Test-retest relability coefficients over a 1-week interval were found to be .97 for the total score and .94 to .98 for the factors (Barkley, 1988; Conners, 1990). The revised version proves valid and useful for assessing the externalising problems as the original but is most useful as a quick screening measure (Barkley, 1988; Conners, 1990)

4.2.1.3 Levels of Agreement between Parents and Teachers.

Despite the fact that parents and teachers are both in a good position to judge levels of behaviour problems amongst children the levels of correspondence between them are usually only modest (Touliatos & Lindholm, 1981). Findings from various studies have indicated that the correlation between parent and teacher ratings of children's behaviour problems assessed by rating scales rarely reaches .4 (Goette, Conners, and Ulrich, 1978; Verhulst & Akkerhuis, 1989). Peterson, Becker, Shoemaker, Luria, and Hellmer, (1961) found the average correlation between parent and teacher was .34. In another study on normative data using the CPRS and CTRS Goyette, et al., (1978), reported that although parent and teacher factor correlations were found to be relatively acceptable (.41), they were still lower than mother-father correlations (.51). Using the Behaviour Problem Checklist (BPC), Quay, (1977) reported a comparison of ratings from mothers, fathers, and teachers. The inter-parent correlation were .78 for Conduct Problem (CP) and .67 for Personality Problems (PP) factors, while the parent-teacher correlation were much lower: .33 for CP and .41 for PP. This might suggest that the differences between school and home based measures was the result of the situation rather than the rater. Webster-Stratton (1988) reported that the CBCL rarely correlated with teachers ratings on the PBQ and only the parent CBCL Externalising score significantly correlated with the PBQ Aggressive-Hostile subscale. In most studies which have examined the status of Hyperactivity in relation to antisocial/aggressive behaviours, there is relatively little agreement between the teacher and parent ratings (McGee et al. 1985).

Furthermore it appears that parents report more problems than teachers. For instance,

recently, Vermeersch & Fombonne, (1995), using the CBCL and the TRF, investigated attention and aggressiveness problems among French school-aged children. Their results indicated that French parents reported more aggressive behaviours and attention problems in their children than did teachers. This was confirmed in a study by Touliatos & Lindholm, (1981) who found that not only did parents report a greater number of behaviour problems in their children than did teachers but also that the correlation between them were generally low or low to moderate.

Elander & Rutter, (1996) reported that reliability and validity were generally better for teachers' ratings than those of parents, and several comparisons between groups of children using both scales (Rutter's) have found significant differences only for the teachers' scale.

This pattern of poor agreement might be in part due to differences in behaviour at home and in the classroom. For instance, the difference between home and school contexts will affect the range of behaviours that can be meaningfully reported (Achenbach & Edelbrock, 1981). Parents in general are in the better position to observe a greater range of their children's behaviour in more situations and over much longer periods. Teachers have the advantage of being in a position to perceive, compare, and rate the individual child's behaviour among other schoolchildren. This means that teachers can observe the child's social skills, peer relations, and responses to tasks demanding attention, persistence, and organisation (Elander & Rutter, 1996). In other words, teachers are in a better position to observe failures to attend to structured tasks. Conversely, the presence of somatic complaints and delinquent behaviour syndromes in parents' ratings might only indicate parents' greater opportunities to observe these behaviours (Edelbrock & Achenbach, 1984). In addition, children's problems may be a direct response to the social situation in home or school (Emery, 1982; Lindholm & Touliatos, 1976; Loeber & Dishion, 1984; Yule, & Raynes, 1972). A child may be unhappy at home and well adjusted at school and vice versa (Mitchell & Shepherd, 1980). Problems at home do often influence school performance (Weintraub & Liebert, 1975). On the other hand, factors relating to parents' and teachers' rating style might be responsible. That is to say disagreement may be due to the informants' differing standards for judging the child's behaviour, as well as the different impact that these might have on the child's functioning (Emery, 1982).

The choice of informant should be determined by the needs of the particular enquiry undertaken. In this respect, Achenbach and Edlebrock, (1978) emphasised that because observers and situations inevitably influence children's behaviour, it is probably more useful to determine which observers' ratings are most predictive of other important characteristics than to look for high levels of agreement among different observers. Verhulst, (1995) argues that despite their disagreements, each informant's perspective may validly contribute to the general assessment of a child's needs. For instance, instead of

interpreting low agreement between teachers and parents as low reliability, it should be recognised that both may contribute valid but different data. Discrepancies between teachers and parents may be as informative as agreement between them (Verhulst, 1995).

4.2.1.4. Some Limitations of Rating Scales

While there is no doubt that rating scales offer a standardised, convenient and quick way to assess levels of behavioural adjustment in children they have a number of limitations which must be taken into account.

First ratings by someone who already knows the child (such as a parent or teacher) may be subject to influences that are irrelevant to the child's behaviour (Asher & Wakefield, 1990). For instance, Eysenck & Eysenck, (1985) indicated that one important element influencing behaviour ratings is the personality of the rater. For example, neurotic parents may be easily threatened by some behaviours, while some others may be reluctant to admit inappropriate responses in their children's behaviour. In this respect, Asher & Wakefield, (1990) concluded that parents with a high N score on the Eysenck Personality Questionnaire tended to report more child behaviour problem. Rutter and Quinton (1984), too, argue that parent psychiatric status would certainly affect the ratings of their children. Maternal mental state or psychiatric symptomatology were found to affect ratings of children, while in other cases, children's conduct problems were closely related to overt inaccuracy in ratings by personality disordered parents (Rutter and Quinton, 1984).

Second, factors in the child, other than their behaviour might influence the ratings. In this way Taylor, Heptinstall, Sonuga-Barke, Sandberg & Bowyer, (1997) reported that parent's might be differentially sensitive to girls' overactivity and tend to adopt a lower problem threshold. The same problem can occur when adults are rating children from different ethnic minorities. As reported earlier Sonuga-Barke et al.(1992) showed that teachers seem, in a similar way to be differentially sensitive to the deviant behaviour of Asian children.

Third, on the other extreme, unfamiliarity with children who have recently joined a class may reduce teachers' accuracy in rating (Rutter et al., 1976). Moreover, the level of disturbance in the class or school of the child being rated might negatively influence a teacher's rating (Elander & Rutter, 1996).

Fourth, most of the measures reviewed above are primarily designed to examine and assess child behaviour problems in the American culture. Despite this their formats permit cross-national comparisons provided that sufficient attention is given to the need to detect

patterns of particular importance in those other countries (see e.g.,Verhulst, 1995). For this reason numerous studies have been undertaken to determine whether the factor structure of such Rating Scales would remain essentially unchanged if applied to school-aged children belonging to different cultures.

Table 2. Comparisons of Some Instruments To Screen Children's Emotional And Behavioural Problems

Tool	Researcher (Year)	Responser	No. of Items	Age of Child	Scale
CBCL	Achenbach & Edelbrock (1978).	Parent	118	4-18	3 point (0,1,2)
TRF	Achenbach & Edelbrock (1981)	Teachers	113	4-16	3 point (0,1,2)
CBQ 'A'	Rutter (1967)	Parents	31	7-13	3 point (0,1,2)
CBQ 'B'	Rutter (1967)	Teachers	26	7-13	3 point (0,1,2)
PBCL	Quay & Peterson (1975).	Parents	55	4-12	3 point (0,1,2)
PBQ	Behar & Stringfield (1974).	Parents	32	2-6	3 point (0,1,2)
CTRS	Conners (1969).	Teachers	39	6-16	4 point (0,1,2,3)
CPRS	Conners (1970).	Parents	93	6-16	4 point (0,1,2,3)

4.2.2. Using Rating Scales in Non-Western Studies

While the present thesis does not involve a comparison of problems in two different cultures and will not make claims about absolute prevalence, previous cross-cultural studies raise issues about the use of rating scales in non-western cultures that we should be aware of. Until recently, cultural issues in the measurement of psychopathology received little attention because of the conviction that etiology, manifestation, pattern and outcome were essentially universal and independent of cultural factors (Marsella & Kameoka, 1989). This Universalist position has been challenged by investigators who tend to believe that culture can play a role in psychopathology by determining the standards of normality and abnormality (Reid, 1995), by creating psychosocial stressors that may increase the individual's tolerance or by shaping personality in the context of specific environmental demands (Marsella & Scheuer, 1987). Some empirical evidence supports these criticisms as researchers have reported that psychological disorders may vary in rates, diagnostic patterns, and expression across different cultures (Al-Issa, 1982; Reid, 1995). For example, Attention Deficit Hyperactivity Disorder as a disorder and the tools formulated to measure it were mainly derived from the perspective of Western professionals adopting Western concepts of disorder and assessments without recognition of cultural differences

(Bauermeister, Berrios, Jimenez, Acevedots, & Gordon, 1990). As this applies to most other domains of disorder, it would be reasonable to expect some difficulties in the assessment of childhood behaviour problems when crossing cultural boundaries. Attempts to compare childhood psychopathology in non-industrialised countries with Western societies raise methodological issues.

First, prevalence and patterns of children's behavioural and emotional problems may differ as a function of cultural perception. Perceptions of the type of phenomenon that constitute problems of adjustment (Al-Issa, 1982; Marsella & Kameoka, 1989) may differ from culture to culture. Even when there is agreement on these matters sensitivity to the magnitude of a problem may vary. For instance, people in one culture might consider one level of child behaviour as normal while people in another might see this as a problem (Taylor, 1987). For instance, Weisz, Suwanlert, Chaiyasit, Weiss, Walter & Anderson (1988) argue that prevalence figures only give a description of significant differences between nationalities but do not provide explanations for these differences. For example, as they maintained, we do not know to what extent the informant's culture-dependent thresholds for perceiving and reporting behaviour, or actual differences in the prevalence of psychopathology, are responsible for differences in problem scores. For the moment, in a traditional culture where few children receive education, hyperactivity and attention problems may not be perceived by adults to be so problematic compared with adults in the West (Weisz et al., 1988).

Second, practices, values, and child-care patterns prevalent in a culture may discourage development of some child problems while fostering others. For example, culturally mediated beliefs and socialisation practices that favour obedience, social conformity, self-control, and compliance may inhibit externalising behaviour but at the same time may increase the probability of internalising behaviour(Edelbrook & Achenbach, 1984; Ollendick, Yang, King, Dong, & Akande, 1996).

In a comprehensive review of problems in cross-cultural research, Reid (1995) emphasised the necessity of establishing cross-cultural validity of rating scales if they are to be considered useful in the assessment of child behaviour problems across different cultural groups. He maintained that for successful establishment of cross-cultural validity, cross-cultural equivalence is a primary prerequisite. Reid (1995) described four characteristics of equivalence that should be fulfilled:

(i) Linguistic equivalence; this means that raters across different cultural groups should share a common understanding of the attribute to be rated. In other words *"....content and grammar have similar connotative and denotative meanings across cultures"*(Marsella & Kameoka, 1989, p.239). Satisfying this requirement involves the accurate translation and back translation of behavioural descriptors.

(ii) Conceptual equivalence; this refers to similarities in the conceptual meaning of the constructs used in the assessment. Raters should have a common understanding of the actual behaviours that make up the attribute to be rated. Attention to variations in cultural perceptions of the attribute to be rated is equally important.

(iii) Scale equivalence; this means that there must exist a common understanding of how the scale is used and raters should have a common metric by which they can interpret the amount/intensity/duration of behaviour that corresponds to a frequency rating of "Not at all", Just a little", "Pretty much", "Very much".

(iv) Normative equivalence; this means that normative standards developed for one culture are appropriate for another. This is particularly important for behaviour rating scales because they utilise a dimensional approach to classification, that is a disorder is present or absent based on the degree to which an individual deviates from the mean of his group. As suggested above normative comparisons across cultures may be misleading or meaningless if differences exist between cultures in the sensitivity or threshold for reporting specific behaviours.

In addition, Reid (1995) postulates that linguistic and conceptual equivalence may be assessed by comparing factor structures across cultures while norm and scale equivalence can be assessed through examination of cross-cultural prevalence rates, comparison of mean scores and examination of norm groups.

4.2.2.1. Examples of Cultural Adaptation of Rating Scales

4.2.2.1.1. CBCL and TRF

Despite these concerns behaviour rating scales have been translated into a wide range of languages and put to good use in different societies (c.f. Sergeant, 1995). While not allowing a direct comparison of prevalence for the reasons outlined above, they make possible an exploration of the structure of the problems in different cultures and their associations with socio-demographic factors. Most reported attempts to use questionnaires standardised in the US and Europe, in other societies, seem to have been successful. When an accurate and culturally sensitive translation procedure is used the questionnaires seem to maintain the positive qualities that make them popular in western studies. They are clear, quick, standardised and produce generalisable results (e.g., Erol et.al, 1995; Sergeant, 1995).

As far as parents' ratings are concerned both the CBCL and CPRS have had considerable impact on researchers other than those working in the U S (Sergeant, 1995).

The first such comparison involved American and Dutch children aged between 4-16 years (Achenbach et al., 1987). CBCLs were filled out by the parents of 1300 American and 2033 Dutch children randomly selected from the general population. Statistical comparisons revealed striking similarities in the problems reported by American and Dutch parents. The Dutch children were scored separately on both the American and the Dutch versions of each syndrome obtained by the CBCL. Inter-questionnaire correlations ranged from .80 to .98 between the syndromes that had clear counterparts. All of the syndromes found for the 12-16 year-old girls had clear counterparts in both countries, whereas seven of the nine syndromes found for the other three sex/age groups had clear counterparts in both countries. The investigators concluded that these findings supported the construct validity of the majority of syndromes derived empirically from the CBCL. Comparisons of parent-reported competencies, however, produced significant national differences. Verhulst, (1995) suggested that Dutch parents' reports of children's competencies might be somehow more associated with specific cultural ingredients than problem behaviour and therefore need to be interpreted against local norms. In addition, these findings when compared with those obtained from the application of the CBCL to assess parent-reported problems in Thailand (Weisz, Suwanlert, Chaiyasit, Weiss, Achenbach, & Walter, 1987), produced only slightly higher scores for the Thai than both American and Dutch children. Differences were mainly found in the area of somatic complaints which were higher for Thai children. Verhulst (1995), interpreted these findings as consistent with the Thai culture, primarily the idea that the Buddhist-influenced emphasis on quietness, inhibition, and deference might foster the development of internalising problems.

Erol, (1995) conducted a study in Turkey the main aims of which were to adapt and standardise the CBCL among 3129 4-18 year-old Turkish children. The findings were examined in terms of age, gender and SES characteristics. Turkish children obtained higher scores than American children. With respect to broad-band Total Problem scores, Turkish children obtained higher scores than American children on the internalising scale whereas American children obtained higher scores on the externalising scale. At the narrow-band level, Turkish children obtained higher scores than American children on Withdrawn, Somatic complaints, Anxious/Depressed, Thought Problems and Attention Problems. For Social Problems, Delinquent Behaviour and Aggressive behaviour, American children scored higher than Turkish children (Erol et al., 1995). Interestingly, the investigators reported that there were significant differences in gender and age for the problem scales of Turkish children. For example, Turkish parents reported higher scores for boys than girls on Total Problems and Externalising scales, while for internalising problems, parents reported higher scores for girls than boys. This has led the investigators to conclude that girls tend to show more internalising or emotional problems, whereas boys display more externalising or disruptive (conduct) behaviour problems (Erol et al., 1995). On the basis

of these findings Erol and colleagues (1995) stated that, after some modifications, the CBCL is a reliable and useful instrument for research and clinical purposes in Turkey. However while this might be true for within country assessment the cross cultural assessments of relative levels of disorder was problematic. This is because there is now clear evidence to support the idea that parents in different cultures adopt different thresholds when making judgements about the presence of disorder. With parents in more traditional societies tending to have higher standards and so set lower problem thresholds (see Reid, 1995 for a review).

The TRF has also been used widely in other cultures. These studies seem to support the view of cross cultural validity of this instrument. For example in one cross-national study, Doepfner, Berner, Schmeck, Lehmkuhi, & Poustka, (1995) replicated the (TRF) in a German community and clinic sample. Factor analysis revealed seven factors. These factors were aggressive behaviour, attention problems, withdrawn, anxious/depressed, social problems, somatic complains, and delinquent behaviour. In general, as the investigators reported, the internal consistencies of the syndrome scales in the German and the American samples were very similar. The authors concluded that the German version of the (TRF) has proven factorially valid with seven of the original eight scales reproduced fairly well in the (German) seven factor solution whereas the remaining factor (thought problems) was not sufficiently represented (Doepfner et al., 1995).

Another example of a cross-national application of the (TRF) was conducted in Greece (Hartman et al., 1995). First, conceptual and linguistic equivalence was ensured and the scale was well received by Greek teachers. Schools were selected from the main urban areas in Greece and the semi-rural and rural areas surrounding them. Researchers visited these schools and a random sample of 30 children with an equal number of boys and girls was selected. The final data set consisted of 1179 children of the same age rated on the questionnaire. The authors of this study reported that because the study was a first step in a comprehensive epidemiological investigation of the prevalence of hyperkinetic disorder in Greece not yet completed they would assess the subscales of the original TRF for the Greek sample (Hartman et al., 1995). In this regard, acceptable to high internal consistency was reported for the four subscales: Attention Problems (.94), Delinquency (.65), Aggression (.95), and Externalizing Behaviour (.95) (Hartman et al., 1995). Comparison of the Greek TRF results with teachers' reports of the different problem behaviours showed a rather different picture. Compared to what was found for parents, Greek teachers scored both boys and girls lower on the attention problem subscale than did US teachers. Teachers' ratings on the delinquency, aggression, and the externalising subscales did not differ for Greek boys compared with US boys, and Greek girls compared with US girls. The authors concluded that on the basis of above reported that these subscales are valid for the Greek population (Hartman et al., 1995).

4.2.2.1.2. CPRS and CTRS

The CPRS has been used in a range of different cultural settings (Werry, Sprague, & Cohen, 1975; Shalev, Hartman, Stavacky, & Sergeant, 1995). For instance, Shalev et al, (1995) conducted a study with Israeli children. Their population included both normative and clinical samples. They reported that exploratory factor analysis yielded eight factors. They considered this solution to be unsatisfactory as opposed to the clear cut four factor solution of the teacher scale. On this basis they discarded factors composed of two and three items. A subsequent factor analysis revealed four factors reflecting conduct problems, hyperactivity, and inattentive-passive dimensions. The fourth factor was named Other items which included various items indicating unsociability. The investigators confirmed that the overall factor structure was found to be similar to that obtained by Goyette et al. (1978) in an American sample. However, this four factor solution accounted for only 33.7% of the variance as opposed to 61.7% in the Goyette et al. (1978) study. The results of this study support the argument that conduct problems, and hyperactivity are distinct and separate factors.

The CTRS, like the CPRS has been used widely in settings other than the US and Europe. For instance, Luk & Leung (1988a), applied the CTRS to a representative sample of normal primary school children in Hong Kong. They reported that inter-rater and test-retest reliability was satisfactory (.55 and .89 respectively). The factor structure was also similar to the results of other studies except that there was a strong association between hyperactivity and conduct problems. Together these made a combined factor instead of separate factors as was the case in Western countries. In a more recent study, Luk & Leung (1989) concluded that although the CTRS is not good enough for diagnostic purposes it is useful as a screening instrument in epidemiological studies.

4.2.2.1.3. Sudanese Behavioural Scale (Al Awad & Sonuga-Barke, 1992)

As previously mentioned, Al-Awad and Sonuga-Barke (1992) investigated childhood problems in the Sudan by examining the adjustment of a representative sample of 4-9 year-old children living in Khartoum using a 42-item three-point, Likert-type questionnaire scale. It was completed by parents only to give information about their children adjustment and development. The data was factor analysed and an eight-factor solution was derived. These factors were considered convincing as they revealed meaningful distinctions of narrow- and broad-band behaviour problems (*for more details see section 1.3).*

4.2.3. In Summary

One important task for experts in childhood psychopathology is the identification of child behaviour problems and the accurate communication of these to other concerned

professionals. One valuable tool in reporting this information is the use of behaviour rating scales. In this respect, parents' and teachers' ratings of children's behaviour are frequently used by mental health professionals in the assessment of childhood deviance and disorder. These scales are simple and feasible and are easily understood and responded to by raters. However, before rating scale are ready for use, validity and reliability must be demonstrated, normative approaches must be adopted and multiple informants providing information about children must be contacted.

In spite of the fact that rating scales are a useful, convenient and quick way of assessing children's behaviour problems, they have several limitations that should be taken into consideration. Factors related to the rater's personality and background, rather than the child, might influence the ratings of the child's behaviour. Factors in the child other than his behaviour, such as ethnicity or socio-economic status, might influence ratings. Moreover, factors related to the situation (school or home) might also affect the precision of ratings. In addition, there is considerable evidence for practice effects connected with behaviour rating scales in which the initial ratings tend to be higher than subsequent ratings (Reid, 1995). For these reasons numerous studies have been conducted to examine and compare the factor structure of behaviour rating scales across different cultures.

While some investigators regard parents in general as being in a better position to observe a greater range of their children's behaviour, others would see teachers as enjoying the advantage of being able to perceive, compare the individual child with other schoolchildren (Elander & Rutter, 1996). However, there is an overwhelming consensus among investigators that both teacher and parent ratings are useful (Conners, 1969; Goyette et al., 1978; Trites et al., 1982).

Despite great variation in instruments, subjects, and statistical methods, empirical studies of parents' and teachers' rating scales have consistently obtained a number of broad-internalising and externalising problems and narrow-band problems such as anxiety, hyperactivity and conduct disorder (Wicks-Nelson & Israel, 1991). While parent rating scales, in general, have shown that overactivity and inattentiveness, are combined in one hyperactivity factor, teacher rating scales have identified two distinct syndromes which relate to different aspects of hyperactivity (Conners, 1969; Goyette et al., 1978; Trites et al., 1982; Edelbrock & Achenbach, 1984). However, these distinctions of broad- and narrow-band childhood behaviour problems appear to have some support (e.g., American Psychiatric Association, 1994).

Researchers have claimed that cultural perceptions might determine the standards of normality and abnormality, foster psychosocial stressors, and shape the configuration of the individual's personality. Therefore, psychological disorders may vary in prevalence, course and expression across different cultures. While keeping this debate in mind and

striving to achieve a better understanding of psychopathology investigators have tried to design culturally sensitive studies and attempted to compare findings from culture to culture. In their endeavour to build up a common core of knowledge about childhood psychopathology at the international level, investigators have translated behaviour rating scales into a wide spectrum of languages and have attempted to successfully apply them in different societies (Sergeant, 1995).

Although most of the popular rating scales employed in measuring child behaviour problems are developed in the West, most reported attempts to use questionnaires standardised in the US and Europe, in other societies, appear to have been successful.

4.3. The Ecology of Child-care and Development- a Selected Review with Special Reference to the Situation in the Sudan

In the next section we will turn from issues related to the measurement of problems to those factors within the family that may cause them. In doing this we will focus on a range of characteristics thought to be most likely to affect child development in the Sudanese situation. A number of factors that are thought to have a significant impact on child-care practices have been selected. These were breast-feeding, weaning, toilet training, physical discipline, maternal contact with children, maternal employment, grandparents' involvement in child-care, family size and family structure. First the rationale for the areas selected for investigation is set out in the light of (i) an understanding of life in the Sudan and (ii) the current literature on child-care and development.

Like many other non-Western societies, the Sudan is undergoing marked rapid social change as a result of socio-economic development schemes, internal migration and re-settlement and westernisation. These changes are likely to have an impact at many levels of society. For instance, structural changes reflected in changes in the distribution of family types, job opportunities and education are likely to be combined with functional changes reflected in peoples' beliefs, goals, and expectations. Both levels of social change are likely to have a major impact on the way that Sudanese children are reared and the sorts of child-care and socialisation practices adopted. The issue of the impact of Tradition on child-care and development will continue to be a recurring theme in this thesis.

4.3.1 An Ecological Perspective of Human development

During the last decade it has become apparent that, besides the traditional examination of early mother-child interaction, investigating the impact of multiple variables in different situations at different times during the developmental process is crucial to understanding child development (Salzinger, 1990). This trend has resulted in a burst of activity aimed at relating developmental outcomes of childhood to various aspects of family processes and structure (Dadds, 1994). In particular, there has been a growing awareness of the strong

influence of physical and social contexts of development and this has become embodied in systems approaches to development (e.g., Bronfenbrenner, 1979). These approaches appear to share a holistic view and a concern for the processes of interaction among different levels of an intricate system involving the developing person and the environmental elements (Gotlieb & McCabe, 1990). External physical and human environments exhibit a structure that can be described in various ways. The quality of these settings and our ecological position in them shapes our actions and experiences (Gump, 1984). It seems that a specifically ecological approach is appropriate to the study of child-care and development when the process includes such an interest. For this reason in the following section I shall explore, one of the most popular of such approaches that of Bronfenbrenner (1979) as a theoretical framework for the study of child-care and development in the Sudan.

4.3.2. Bronfenbrenner's Ecological Model

Bronfenbrenner's ecological perspective considers the components of the environment as a multi-level system. Bronfenbrenner views the developmental context as an organised system of *"progressively more comprehensive levels"* (1988, p.38) of interrelated social structures starting with the most proximal interaction setting, the microsystem (the family, the day care centre, etc.), and spreading out to include the most distal macrosystem which reflects the characteristics of the total cultural context. A microsystem is defined as " *a pattern of activities, roles, and interpersonal relations experienced by the developing person in a given face-to-face setting with particular physical and material features, and containing other persons with distinctive characteristics of temperament, personality, and systems of beliefs"* (Bronfenbrenner, 1989 p. 227). Mesosystems, the next level up, involve relation between two or more settings in which the developing person is an active participant (for example, family-school relations). The exosystem is defined by the relations between settings, at least some of which do not involve the developing person directly as a participant, but that influence processes operating at levels in which the developing child is directly involved (e.g., the relationship between the conditions of parental employment and the child). The macrosystem reflects the culture-wide patterns of inter-relationships among the various embedded levels of the subsystems. These include, specifically, *"the developmentally instigative belief systems, resources, hazards, life styles, opportunity structures, life course options, and pattern of social interchange that are embedded in each of these systems"* (Bronfenbrenner, 1989 p. 228). Bronfenbrenner, (1979) emphasises the importance of the structure of the settings and the processes that occur regarding interconnections. He argues that such interrelations can be as crucial for development as events taking place within a given setting. The nature of developmental processes change as a function of a person's exposure to and interaction with the environment (Bronfenbrenner, 1979). Because public policy is expected to shape the total social life placing significant

effects on children and parents directly at home or indirectly in schools, in religious and social institutions or at work, Bronfenbrenner believes that a deep concern with public policy by investigators is basic and vital for progress in the scientific study of human development (Bronfenbrenner, 1979).

In summary, Bronfenbrenner's ecological model seeks to provide a unified but highly differentiated conceptual frame for describing and interrelating structures and processes in both the immediate and the more remote environment as it outlines the course of human development throughout the life span. This approach stems from the author's conviction that a deep scientific understanding of the basic intrapsychic and interpersonal processes of human development demands their inquiry in the actual environment, both immediate and remote in which human beings live and grow (Bronfenbrenner, 1979).

To understand how the social context in the Sudan influences processes of child development, I will try to define the variables of the present study in terms of Bronfenbrenner's ecological model. The microsystem involves the family characteristics whether nuclear or extended as it affects activities, roles, and interpersonal relations experienced by children. As is known, the family home serves as a most important context of human development. The family usually provides the initial environment that stimulates the physical, linguistic, psycho-social, moral, and intellectual development of children. In Bronfenbrenner's words, the family constitutes a face-to-face setting with particular physical and material features and contains the parents, grandparents and siblings as persons with distinctive characteristics of temperament, personality, and systems of beliefs. The mesosystem involves the variables of child-care characteristics in which the child is an active participant between the immediate home environment and other settings such as nurseries, schools, Mosques, Khalwas, and grandparents' influence as forces affecting processes of socialisation and development. The exosystem is represented by the interconnections between child-care characteristics and some of parents' characteristics such as parents' education, fathers' occupation, and maternal employment because the child is not directly involved as an active participant in these interconnections but they do have some influence on processes in which the child is directly involved. In operational terms, the macrosystem is manifested in the Sudanese wide cultural patterns and belief systems held by the society with respect to the three previous levels of the ecological environment. In particular, social norms, parental attitudes, religious beliefs and practices, affecting the demographic, family, and child-care characteristics.

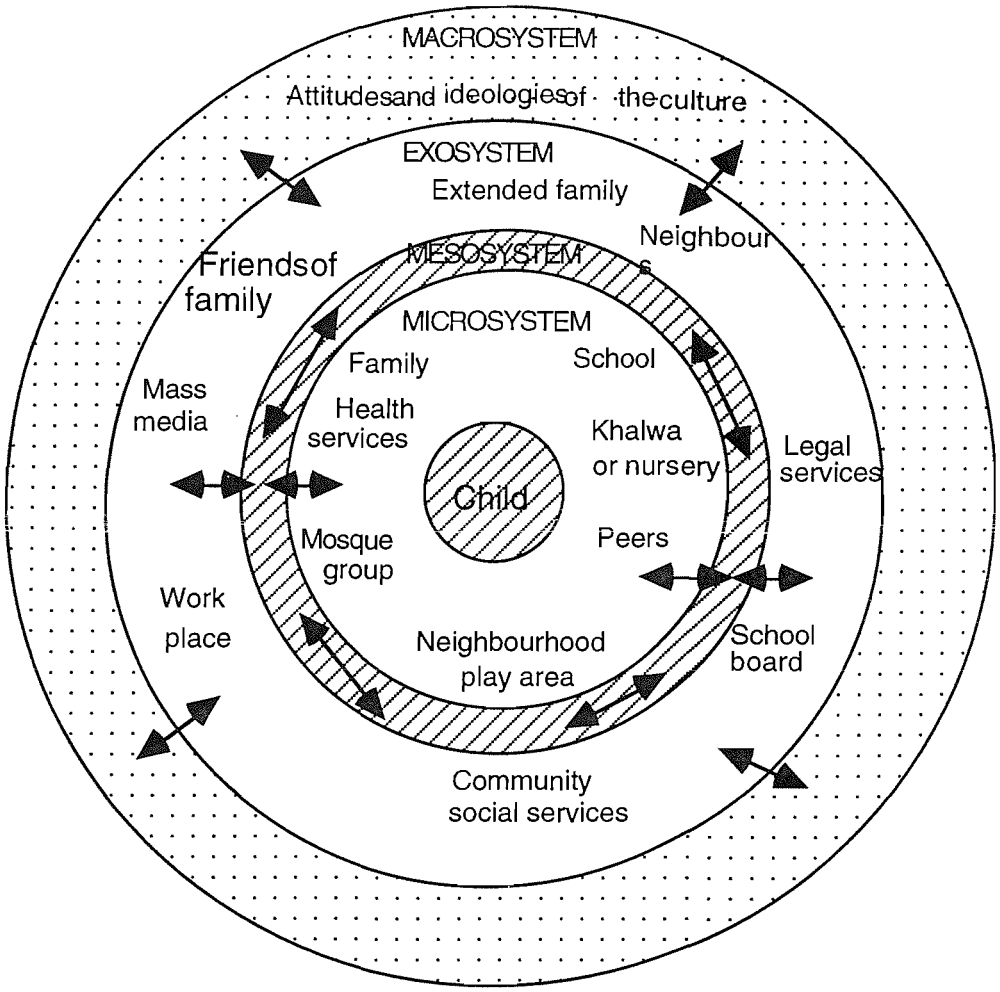


Figure 1: Sudanese Ecological Model of Human Development. (Adapted from Bronfenbrenner, 1979).

4.3.3 Sudanese Child-care Past and Present

This section will focus on child-care issues that appear to be important in the history of Sudanese culture by (i) examining their likely impact on development and (ii) comparing their associations with factors in both Western and Non-Western societies.

4.3.3.1. The Sudanese Attitude Toward Children and their Development

A central theme of child development studies is the influence of parents' beliefs about the basic nature of children and their "theory" of how children should be brought up on child rearing practices (Goodnow, 1990). Influenced by the Islamic heritage, the Sudanese culture encourages breeding of children because large families are esteemed and the new-born is generally received with warmth (Badri, 1979). More specifically, research has focused on mothers. It is believed that the ordinary everyday interaction between mother

and child constitutes an important part of the social environment of childhood (Bowlby, 1988; Ainsworth, Bleher, Waters, & Wall, 1978). The study of mother-child interaction involves an examination of the behaviours, attitudes, beliefs, and values, that give shape to the social circumstances in which child and mother interact (Ford, Harris, & Turner, 1991). However, the mother-child relationship takes place within a set of demographic considerations such as physical, economic, and cultural circumstances that in many ways shape the parents' approach to child-care (Bronfenbrenner, 1979; Laosa, 1981). For instance the grandmother 's place of residence (Beck & Beck, 1989; Al-Awad & Sonuga-Barke, 1992), the number of children in the family (Kivett, 1993), and the amount of education the parents received (Sigman et al., 1989; Atabani, 1985) also affect ideas of development and the type and quality of child-care (Staples & Smith, 1954). Numerous studies document the association between demographic characteristics and the types of child-care employed by parents in Western countries (Bronfenbrenner, 1979; Schroeder, 1992; Straus, 1991). However, the extent to which these findings pertain to child-care and development in other cultures or traditional societies is still largely unknown (Sigman et. al, 1988). In this regard, extended family type was found to be conducive to psychological stability of both Sudanese parents and children. In contrast, the nuclear type was not so grounded in the cultural ideal of the society and was associated with more psychological problems of children (Al-Awad & Sonuga-Barke, 1992).

When Sudanese babies are born their mothers usually breast-feed them on demand and pick them up whenever they cry. There is little shame about feeding babies in public. The baby is swaddled for several months which usually makes it possible for his mother to keep him at her side day and night. Most mothers spend much time with their infants. The baby is usually carried by his mother on her chest and sleeps in the mother's bed. As in other traditional cultures very close attachment to the mother is desirable and encouraged. Nursing and caring for the child is a continuous concern for the mother and those helping her till the age of weaning (Al-Awad & Sonuga-Barke, 1992). Before powdered milk became available, if a mother did not have enough milk, the baby got additional breast milk from an aunt or a woman neighbour who acted as a wet nurse. Atbani, (1985) found that under direct influence of the Qur'an, weaning is usually attained after two years. However, she also found that under the influence of modern education and magazines, some educated mothers tended to bottle-feed and wean their children earlier. For instance, as in the West economic structures are also found to affect both weaning and breast-feeding (Prothero, 1961). In this respect, mothers from traditional sections of society are much more influenced by the Quranic strictures than are the highly educated mothers who have access to Western literature, ideas, and resources. The Sudanese child enjoys sleeping and eating in the homes of his grandparents, aunts, and cousins. Children enjoy much physical contact, warmth, and love that serve as essential ingredients of future communal living and

co-operative behaviour. Obviously, this differs from the individual emphasis prevailing in Western societies. Sudanese parents generally pay close attention to other aspects of their child's upbringing especially regarding toilet-training, discipline, sex-roles, development, and peer activities.

In the early years gender differences are not emphasised. Both boys and girls are raised with similar practices till the ages of six or seven. Then in late childhood the child is taught to behave and function as a woman or a man. Girls are to be quiet, affectionate, and home oriented. Boys are encouraged to be brave, athletic, and dominant. They are inhibited from expressing emotions and behaviours such as fears, crying, and tenderness because these characteristics are considered by the society as behaviour reflecting weakness in the male personality.

Like many African societies, most of the Sudanese people reside primarily in rural areas and live by cultivating crops, herding animals, and sometimes working at jobs that provide modest income. Because of this, most infants accompany their mothers throughout the day; most older children are in school much of the day and at home during late afternoons and evenings. Although these patterns have changed with the modernisation of society and working mothers often leave their children with grandparents.

4.3.3.2. Demographic/Structural Changes of Significance

An examination of life styles in inner cities of developing countries demonstrates changes in family life (Abdel Rahim & Cederblad, 1980). In the Sudan, the formation and increase of nuclear families was found to be associated with a number of demographic changes. While variations of the extended family type still dominate social life in rural areas, in the city a large number of families are now based on the nuclear unit common in Western societies. It has been shown that the shift from the extended to the nuclear family is motivated by a mix of social and demographic factors (Grotberg & Badri 1992).

This shift would presumably affect the type and quality of child-care. It was found that child-care in the Sudan differed among traditional and modern families (Grotberg & Badri 1989). For instance, children of extended family were breast-fed, weaned later and had grandmothers involved in their care (Al-Awad & Sonuga-Barke, 1992). Similar to the West, religious affiliations in the Sudan were also associated with traditional views concerning family life and family size (Baasher, 1964). Badri (1979) explained the prevalence of the extended family in the Sudan in the light of religious values. However, both demographic and child development studies in the Sudan have failed to examine the relationship between the demographic characteristics and a wide spectrum of child-care activities prevalent in the Sudan. In the following sections I will explore the impact of these demographic changes upon child-care practices in Sudan compared with other societies. A word of explanation is required at this point regarding the terminology used in this review.

The terms Western and non-Western will be used as the basis of the comparison of child-care practices. These terms are to be understood in the broadest terms with the recognition that (i) there are many other sensible ways to distinguish cultures, (ii) that within these broad terms there is much that is society specific variation and (iii) that within so called non-Western societies there is much variation. In fact it is that variation introduced by westernisation that this thesis will focus on.

4.3.3.3. Breast-feeding

Bee (1989) reported that breast-feeding is the option of choice for the majority of mothers in general. In the United States and Western Europe approximately one-half of mothers breast-feed their children for at least a few months after birth (Bee, 1989). It is believed that breast-feeding offers physiological, emotional, psychological and practical advantage (Jolly, 1989). Experts have ascertained that breast-feeding is more economical, healthier, and nutritionally superior to bottle-feeding (Schroeder, 1992). Moreover, breast-feeding is an emotionally and psychologically satisfying experience for both the mother and the child. However, in the West breast-feeding is also thought to put constraints on the mother's physical freedom especially if she works outside home (Schroeder, 1992). During the last few years breast-feeding has gained in popularity over bottle-feeding in the US. Paediatricians have urged its adoption because they see breast-feeding as the best option for the child's short-term, and perhaps long-term health (Santrock & Yussen, 1992).

In the developing countries, 90 percent or more of mothers are reported to breast-feed their children (Bee, 1989). There is a consensus among experts that breast-feeding is the preferred practice in developing countries where inadequate nutrition due to poverty is common (Santrock &Yussen, 1992). Research findings suggest that the main factors influencing the choice of breast-feeding in traditional societies were found to be cultural and religious (Prothero, 1961; Atabani, 1985). It is believed that the general pattern of infant feeding bears a systematic relationship to the cultural configuration and the social set up of the community. According to Sears, Maccoby, and Levin (1957) the nursing situation reveals to the child the emotional emphasis that significant others, and the culture as a whole, are placing upon him. For example, Sears and his associates (1957) reported that the decline of breast-feeding in USA was affected by the attitude of some American mothers that breast-feeding might impair their figures while some were anxious about their capacities to satisfy the baby's hunger, and for others breast-feeding would interfere with their employment or other community affairs.

Studies in the Sudan suggest that breast-feeding was related to the mothers' education and social class. For instance, Atabani (1985) found that significantly less mothers from the educated upper class breast-fed their children than from the middle or lower classes. In

Lebanon, Prothero (1961) reported that breast-feeding was a normal practice. Ninety-two percent of the mothers he interviewed reported that they had breast-fed their children. Those who did not breast-feed their children regretted that their poor health prevented them from doing so. Prothero also found a marked difference between middle and lower class attitudes to breast-feeding and weaning practices. He explained this difference by saying that the duration of breast-feeding might be influenced in part by the modern outlook of the middle class. The use of the bottle would give mothers greater freedom to take part in out of home activities. In this respect, Temuru (1980) reported that in Nigeria, the more educated the mother, the shorter the time of nursing and the less frequent was breast-feeding. He thus concluded that more education dramatically changes feeding patterns in Nigeria. The Newsons (1974) indicated that in Lagos and Ibadan, both the educated elite and the urban poor had adopted bottle-feeding for several reasons including the changing economic roles of women and the adaptation of traditional values to Western feeding practices. In Tanzania, Pendeali & Swift (1976) reported that breast-feeding was virtually universal across the country. Of the sample more than 60% continued breast-feeding until the age of 2. Mothers with education and paid jobs breast-fed their children for shorter period of time than the normal peasant.

4 3.3.4. Weaning

Weaning is the process by which the child learns to take his food by himself and accompanies the withdrawal of breast or bottle feeding. This process indicates change from infantile dependence to independence and can be associated with the development of crying, thumb-sucking, sibling rivalry and reduced appetite. Weaning marks the transition from being the centre of the mother's attention to a situation in which the infant can be looked after by other care-takers.

Research suggests that weaning takes place around the age of six to eight months in the West (Prothero, 1961; Bee, 1989). For example, in the United states and in Western Europe over 50% weaned at this stage because this decision for the mother has a practical implications concerning other types of child-care particularly the feeding type and the mother's physical freedom, availability and interaction with her child. In addition, rich nutrients are always readily available (Schroeder, 1992).

Weaning practices are similar right across Africa despite varying patterns of diet, age of cessation of breast-feeding, and social expectations (Kalu, 1992). Weaning takes place between 12 to 24 months and is often accompanied by toilet training. The age of weaning is often associated with the birth of the next baby. Although the emotional experience of weaning is very hard for children, African family involvement in child-care often mitigates the negative effects by providing a sense of emotional security (Kalu, 1992).

As with breast-feeding research findings suggest that the main factors influencing the

age at which children are weaned in traditional societies are cultural and religious beliefs (Prothero, 1961; Atabani, 1985). In Nigeria, women from poor urban areas on average weaned their children at 17 months. Ninety-five percent of these mothers were working in "traditional occupations" (Kalu, 1987). In the Sudan, weaning was found to be related to the mothers' level of education and their socio-economic class. For example, educated mothers and those from the upper class weaned their babies significantly earlier than did mothers in any other socio-economic level (Atabani, 1985). Religious belief in the Sudan was also shown to be a significant factor in the weaning process. Research findings (Siddik, 1968; Atbani, 1985) confirmed that under the direct influence of the Qur'an, weaning is usually attained after two years. In the Lebanon, Prothero (1961) showed that there was a marked difference between the high-status and the low-status families in weaning practices. People's religious practices were also found to have an impact on the weaning age. However, the norm was for weaning to occur by the age of one. Prothero (1961) also compared Lebanese mothers with European and American mothers and found that the Lebanese norm of a one year period of breast-feeding was considerably longer than the American and the European practice.

4.3.3.5. Toilet Training

It is known that as infants mature, they can learn to inhibit their bladder and bowel reflexes. This process depends on the maturation of the cerebral cortex. Boys achieve toilet control later than girls because they are physically less mature. Some children might show some signs of disturbance related to toilet training such as enuresis, or bedwetting. Those who have experienced such episodes of disturbance are often reported to have had problems in other areas of behaviour (Schroeder, 1992). Successful toilet training demands, besides maturation, emotional security, good nurturing relationship, and proper instructions provided by the family (Bee, 1989).

In Western countries, girls are usually toilet trained between two and two and a half years of age while boys are reported to have achieved toilet training around the third year of life (Schroeder, 1992). Davie, Hutt, Vincent, & Mason (1984), conducted an observational study about some childrearing practices in North Staffordshire in the United Kingdom and reported that by the age of 3 years only 10% of their sample did not achieve toilet training and significantly more of them were boys.

Toilet training in non-Western societies seems to follow a similar pattern to Western practice. For instance, in Tanzania toilet training was rarely initiated before the age of one year with the average being around the second year of age according to Pendeali & Swift (1976). The child was simply encouraged through example or instruction, or by hand manipulation of the child's arms to empty the bowel. Threats were rarely used until the child was older to prevent him from bedwetting. The child was expected to remain dry

throughout the night at some time around the third year.

4.3.3.6. Physical Discipline

The most common forms of physical punishment are reported to be spanking, slapping, grabbing, or hitting the child. Physical punishment has a long history and is universally practised (Sears, et al., 1957) and remains central to the socialisation process (Straus, 1991). Physical punishment often starts in the first year after birth and continues through the pre-school years for some children and continues into the teenage years for some others.

Until recently the use of physical discipline in the West was common. For instance, in a survey on a sample of 2500 Swedish adults, about the use of physical discipline in home, 53% thought it is necessary sometimes, 35% held the view that parents should be able to manage without it, while 12% were unsure (Cederblad, 1968). When Swedish parents of children were interviewed about this issue, 65% of them considered corporal punishment was necessary in child discipline (Cederblad, 1968). However, it must be recognised that recent changes have been implicated in the law in Sweden to meet changes in people's attitudes towards smacking children. In Britain, it has been reported that 38% of a sample of 165 children were smacked by their parents in the course of observation (Davie, et al., 1984). In addition, parents and teachers in the US and many Western countries have a legal right to carry out acts of discipline, whereas the same act is considered a criminal assault if carried out by someone else (Straus, 1991). Straus noted that almost the entire US population is involved in physical punishment, either as the recipient or the administrator. He reported that studies of large and nationally representative samples of American children conducted between 1975 and 1985 found that almost all parents in the United States use physical punishment with young children. The investigator went on to indicate that physical punishment is deeply rooted in Euro-American religious and legal traditions citing the biblical phrase "spare the rod and spoil the child". He argues the significance of physical punishment and its effect on individuals, school, families, and society. However, there has recently been a debate on this issue as the awareness of the children's welfare has become a legal and social consideration. It is argued that the transition from the traditional type of family to the modern nuclear unit gave children the opportunity to benefit from the advantages of the modern attitudes to child-rearing practices. These emphasise looser discipline over young children or the indirect parental control approach through the manipulation of their environment rather than direct control over the children themselves (Gadlin, 1978).

In the Sudan, the attitudes of parents towards the use of physical punishment is in general positive. For example, in an earlier study Cederbald (1968) reported that 65% of parents interviewed thought the use of physical punishment was right in the up-bringing of

children, 30 % were against it, while 5% were unwilling to reply. The author drew attention to the remarkable finding that parents in the Sudan and Sweden have similar attitudes to physical punishment. In a more recent study, describing continuing patterns and practices parents and families use to rear their children in metropolitan Khartoum, Grotberg & Badri (1992) concluded that children are disciplined strictly and with physical punishment. Parents insist on prompt obedience and require children to be polite and submissive to adults. Parents do not tolerate angry outbursts from children and they punish by hitting or smacking them. In addition, the investigators observed that traditional parents were stricter in this sense than modern parents. According to Grotberg & Badri (1992) modern parents often come from nuclear families. Similarly, Pendeali & Swift, (1976) reported that in Tanzania physical punishment combined with threats, scolding, warning and redicule were used to discipline children. The responsibility for discipline was usually shared by both parents who utilised fear regularly to obtain obedience on the part of the child. In Nigeria children receive punishment in the form of beatings in a moderate intensity both at home and school (Temuru, 1980).

It is generally accepted that parental discipline is crucial to children's socialisation. The effectiveness of parental discipline depends on the particular method used, i.e. reasoning or restrictive power assertion (Grusec & Goodnow, 1994). Potential discipline hypotheses are numerous because a wide range of theories of discipline have been offered. These theories include those based on traditional dimensions of child-rearing such as warmth-hostility and restrictive-permissive, (Baumrind, 1978). An attempt to address all these theories in the present study would be impossible, so our emphasis will be on the use of physical punishment as a disciplinary measure. In this respect, Hoffman (1970) demonstrated that parents who relied solely on power assertive approaches such as force, physical punishment and threats were less likely to be successful in promoting competence and guilt after antisocial behaviour in their children. Moreover, physical punishment is seen as putting limits on the child's autonomy and threatens his feelings of security and if delivered by an out-of-control parent it may have a lasting frightening effects as well (Grusec & Goodnow, 1994). There is evidence to suggest that the child's age and gender are important in determining his/her perception of and reaction to parental use of physical punishment. For instance, Siegal and Cowen (1984) demonstrated that old children, and boys rather than girls, evaluate physical punishment by mothers less favourably than do young children. This in turn would affect parent-child relationship. Troubled parent-child relationships, however, have been implicated in almost every major childhood psychological disorder (Rutter & Garmezy, 1984). More clearly, the literature on disciplinary measures has documented the relationship between parental assertive control and children's externalising behaviour (Baumrind, 1978).

4.3.3.7. Parental Contact with Children

It is suggested that parental contact is an essential ingredient in fostering attachment to the child (Bee, 1989). The rate (or level) of contact time that parents spend with their children will affect the quality of attachments formed and reinforce the sense of security required for healthy development (Belsky & Vondra, 1989). Attachment is defined as strong affectional ties that bind a person to his or her most intimate companions (Bowlby, 1988). It is believed that the bond that exists between parents and their children is a very special kind of attachment. The strength and character of this attachment will influence the quality of the child's interaction with parents and with other individuals in his social environment (Schroeder, 1992). Children who have few or have been denied contact with their mothers are likely to have poor attachment which may put them at higher risk for a range of emotional problems (Lewis, Feiring, McGuffog, & Jaskir, 1984). However, it is very important to note that is the quality and not just the quantity of interaction that is essential for attachment.

Beck & Beck (1989) suggested that today in Western societies children spend less time in family living arrangement than their predecessors had, particularly in nuclear households. Moreover, in single-parent families the permanent disappearance of the father may leave a profound effect on the child's socio-emotional development as the father is expected to play a substantial role in the life of most children (Laosa, 1981). Considering the rising maternal employment in industrialised countries, children might have not enjoyed the advantage of spending sufficient time with their mothers.

The degree of contact, between parents and their children, varies according to the sex of children and parents. For example, In Tanzania there was little contact between father and either young children or older daughters but remarkably more with older sons who would often live in the father's compound after the age of 7 or 8. The father/daughter contact was limited to occasional events such as walking to the church together or meal time contact. More than 90% of the respondents in the sample studied by Pendeali & Swift (1976) classified the relationship between fathers and daughters as being "not close". Also greater degree of contact between mother and son than between father and daughter was reported. In general, the mothers had less contact with their sons after the age of 4 years than before.

Both the quality and the quantity of mother-child contact have been shown to be related to child outcome. Ineffective parenting has been implicated not only in children's conduct and antisocial behaviour but also in a lack of social skills (Loeber & Dishion, 1983). Insensitive parenting may lead to both anxiety and anger (Zeanah & Zeanah, 1989). One aspect that leads to inadequate parenting is a mother who is put at risk as she experiences

less emotional support and feels unsupported by their family of origin (Goodyer, 1990). In addition, a positive marital relationship may protect a child even when the mother was the victim of abusive or insensitive parenting herself while the atmosphere of tension in the family may be perceived by a child as parental rejection (Jacob, Krahn & Leonard, 1991).

The literature on childhood psychopathology also suggests that there exists a strong relationship between the quality of mother-child contact and child behaviour problems (Breen & Barkley, 1989; Mash & Johnston; Webster-Stratton & Hammond, 1988). For example, the presence of maternal depression and an impaired sense of competence associated with the parenting role seem to result in mothers being less available, less interactive with their child and less capable of responding to the child in constructive manner (Abidin, Jenkins, & McGaughey, 1992). However, because of practical constraints the present study focused on the quantity of mother-child contact rather than its quality.

4.3.3.8. The Significance of Maternal Employment

The steadily increasing number of mothers entering the labour force in the West is well documented (Henderson , Lee & Birdsall (1993). In Western societies, there is evidence that maternal employment is more likely in relatively high SES families (Eggebeen & Hawkins, 1990). For instance, in North America, childbirth serves as an important decision point for many women regarding their participation in the labour force because of the demands of young infants (Symons & McLeod, 1993). This rapid influx of mothers into the labour force, particularly mothers of pre-schoolers, has been associated with a growing divergence from traditional parental roles. Henderson et al., 1993), reported that attitudes toward maternal employment were influenced by a number of factors. Important among them were socio-economic status, gender, education, race, in addition to ideologies associated with religious and political views. Trying to explore and understand these attitudes would presumably help in assessing the quantity and quality of child-care in the community which in turn affect children's development. For example, some investigators (McLoyd, 1990) found that socio-economic status was negatively related to traditional sex-role attitudes. Interestingly, Martin & Martin (1978) found that both low and high SES mothers held traditional views regarding maternal employment, while middle class individuals tended to be less stereotyped or traditional. The basic question here is whether it makes any difference for the child if the mother is employed and what impact this would have on family functioning. The findings of studies conducted in the West comparing families of working and non-working mothers showed that maternal employment creates changes in the mother's self esteem and in the family's interaction patterns. Mothers who work have more decision-making power within the family and they may also have higher self-esteem especially if they are satisfied with their work. This in turn may spill over into

the level of interaction and quality of child-care in the family (Blumstein & Schwartz, 1983). It is clear that this appreciation for maternal work in Western societies is perhaps dictated by cultural factors. Maternal work may reinforce the mother's sense of independence and self-reliance in the forced poverty or other social adversities. However, there is another side of this story. Some studies questioned the value of maternal employment as it sometimes affects child-care practices and family patterns particularly in relation to attachment and mother-child interaction.(Bee, 1989; Beck & Beck, 1989; Laosa, 1981).

In contrast, in the Sudanese society although maternal employment is becoming more culturally acceptable, mothers generally are not required to worry about bread-winning since it is religiously and socially held as the father's basic responsibility. Moreover, mothers' self-esteem and protection are achieved through conformity and compliance with the social and cultural values that do not place as much emphasis on maternal employment as is the case in Western societies. Grotberg & Badri, (1992) found that high-income families, in the Sudan, were less traditional in their views towards women's participation in the professional and public domains and they were more open to adopt modern ways in raising their children. In Nigeria, the role of women being employed to work in public and private sectors is a relatively modern phenomenon in Lagos and other major cities (Temuru, 1980). Investigating the effect of this phenomenon on maternity, Temuru (1980) reported that women who stayed at home provided the best care for children and made better mothers than those working outside home.

4.3.3.9. Child-care Provided by Grandparents

While past research has emphasised the primary role of parents in the support of their own children, there is a growing interest in the role of extended kin and non-kin networks in providing support for child-care and development (Bronfenbrenner, 1979; Apter, 1982; Davie, et al., 1984; LLoyd & Desai, 1992; Al-Awad & Sonuga-Barke, 1992). Besides maternal employment in North American and European societies, the increase in extended living arrangements of single-mothers has led to a dramatic increase in the number of grandparents involved in the care of their grandchildren (Wilson, 1986). In a more recent study, Minkler, Roe, & Price, (1992) reported that approximately 3.2 million US. children currently live with grandparents. Although the increase in grandparents' involvement in child-care cuts across ethnic lines, it has been particularly noted in the African-American community, where over 12% of children live with their grandparents, compared with 5.8% of Hispanic and 3.6% of white children (Minkler, Roe, & Price, 1992). Kivett (1993) studied the grandmother's role in the American black family and she found that blacks had more contact with grandchildren and higher normal expectations for assistance than corresponding white children. The literature in this area highlights several factors that

influence the likelihood of intergenerational associations such as age, number and gender of the grandchildren; age, gender, and socio-economic status of the grandparent, household structure, and geographical proximity to grandchildren (Kivett, 1993).

Few studies have examined the functional role of three-generation family system in child development (Stein, Newcomb & Bentler, 1993). In this respect it is found that any emotional or material support extended by grandparents or other kin to young parents not only minimises the risks associated with large families but also positively contributes to the well-being of parents and the socio-emotional adjustment of children (Al-Awad & Sonuga-Barke, 1992; Beck & Beck. 1989; Wilson, 1984). Moreover, it has been suggested that social support, especially from grandparents, is a particularly critical factor when a family is experiencing stress (Crockenberg, 1981).

In China, grandparents do not only serve as a source of support and advice for the parents but they are also strongly involved in the youngster's education (Yu-feng, Yu-cun, Bo-mei, Mei-Xiang, & Ai Lin, 1989). In addition to this role, in Taiwan, grandparents living in the family and participating in child-care is considered a symbol of happiness (Lee & Sun, 1995). In Nigeria the long established role of grandparents living in the family and participating in child-care is threatened by the wave of industrialisation and immigration to urban centres. However, even in urban congregations the grandmother has retained her traditional role helping the working mother in child-care, looking after the children when the mother is at work and teaching them some aspects of their culture (Temuru, 1980). With regard to the role played by grandparents in the Sudanese society, the protective role of the grandmother in family functioning is documented (see above, section 1.4.).

In most of the studies looking at the role of grandparenting in family life emphasis has been given to grandmothering. Interestingly, however, positive effects of grandfather participation in child-care have also been found to be associated with low levels of infant negative affect and enhanced child's compliance with maternal requests (Osyerman, Radin & Benn, 1993; Barnes, 1995).

In brief, the protective effects of grandparents' support on the mental health of mothers and the functioning of their families is well established (Spieker & Bensley, 1994). This is manifested in a number of ways including, practical help in child-care, financial help, and help in other family-related psychosocial matters. In this connection, Lavers & Sonuga-Barke (1996) suggest that although in general grandmother involvement is not a pre-requisite for grandchild adjustment, however, when a genuine need for her role exists and the support offered is geared to meet that need then grandmother involvement can represent a protective feature of the family environment. Presumably, grandmothering among multigenerational families would stimulate studies to examine the question of continuity of parenting across generations. While evidence of intergenerational transmission of parenting styles is documented (Quinton & Rutter, 1988; Chase-Lansdale, Brooks-Gunn, &

Zamsky, 1994) the role of grandmothering in rapidly changing societies or in differing cultural norms may generate some conflicts in parenting patterns and hence poses threats to family functioning. However, it is beyond the scope of the present thesis to examine the mechanisms of transmission of parenting styles in multigenerational living arrangements. Instead the focus will be on grandparental involvement in child-care and its links to family life and children's development and adjustment.

4.3. 3.10. Family Size

Social status and cultural beliefs are recognised as strong determinants of family size. For instance, Roskaft, Wara, & Viken (1992) in their study about reproductive success in a Norwegian Parish, found a significant relationship between parents' social status and family size. They reported that the difference in number of children born to the high- and the low-status groups was statistically significant over the entire 200-year period they studied. The high status women gave birth to significantly more children than the low status women did. Besides the social status variable, the year of marriage and the age of the parent's spouse were also important determinants of family size.

Another important factor in determining family size is religion. Religious affiliation has been shown to affect family size in the West. Thorton, Chatters & Allen (1990), showed that religious people were more likely to express traditional views about family life. Attendance at religious services was positively related to traditional views while liberal political views were identified with more liberal attitudes towards women's familial roles. In many studies of Western industrialised nations, religious differences have often been reported as an important factor affecting family size (Poston, 1990). The literature on the effects of Catholic religious affiliation on fertility behaviour might help explain this. Family size had been influenced by the strong emphasis given by the Catholic church to children in marriage. Catholic women have bigger families because they are much less inclined than non-Catholic women to be voluntarily childless (Fee, Greeley, McReady & Sullivan,1981; Poston, 1990).

In non-Western societies cultural beliefs also play a substantial role in determining family size. For example in a survey, Segal (1993) has shown that rural and urban African women continue to have seven to eight children and sometimes desire even more in order to let their families get well placed in the community. This concern about family size is somewhat a reflection of the value attached to children within a given cultural context as well as personal considerations. Family structure is also reported to influence family size (Lee & Sun, 1995). This factor might help explain the contribution of the extended family to big family size preference.

The question of how many children live in the family has become increasingly important in population growth studies in industrialised countries. However, there is little

consensus that this question applies and enjoys the same attention in most developing countries. On the contrary, it is documented that, as previously mentioned, in traditional societies big families are considered prestigious and beneficial for children themselves. The family is the basic and supportive structure of interpersonal relationships and this would affect the origin and quality of child-care and behaviour. The child acquires an identity which is based on lineage, clan and ethnicity. The African child's identity and personality develop in relation to these factors.

The influence of the religious factor on determining family size has been shown to be significant in some developing countries. Particularly in the Islamic and Arab world breeding of children and some child-rearing practices have been motivated by religious commands and examples (Badri, 1979). In addition, Governments may decide to directly influence family size. This is currently true in some Western and Eastern countries. For example, in Greece incentives were set to encourage parents to have more children, whereas in China one child per couple is the enforced norm (Bernard van Leer Newsletter, 1993). The mean number of children in Sudanese families is six, a number much higher than in Western societies (Grotberg & Badri 1992).The effect of those factors on family size is expected to leave its shadow on child socio-emotional development.

The importance of family size (number of children) for personal and social development of the individual has long been debated (Tuckman & Regan, 1967; Newman, 1996). While some studies have assumed that large families are bad news for the children living in them (Liao, 1992; Graham-Bermann, Culter, Litzenberger & Schwartz, 1994), other findings have indicated positive effects of large family size. For instance, Tuckman & Regan, (1967) reported that in some studies large families were not found to be associated with the better emotional and social adjustment of children. It is thought that a large family makes giving every child quality time, attention and support for education less likely (Liao, 1992). It was also shown that children from large families were more deviant (Matsuura, Okubo, Kato, Kojima, Takashashi, Asai, Asai, Endo, Yamada, Nakane, Kimjura, and Suzuki, 1989; Hassan, 1977). For example, it was reported that in Japan (Matsuura et al., 1989), children from large families had more neurotic symptoms than those from medium sized families. Tuckman & Regan, (1967) reported that as family size increased, school problems and antisocial behaviour increased. Yet, despite the widespread Western middle class belief to have smaller, commonly two-child, families there are some beliefs that large families provide a better social environment for children than do families with small number of children (Newman, 1996). Further evidence suggests that the quality of the relationship between siblings in a large family is better as they provide more warmth, emotional closeness, responsibility and caring for each other (Newman, 1996). Moreover, Rosenberg (1982) concluded that socialisation in a family with siblings is more natural and effective means of socialisation into non-family world. Earlier studies (Adler, 1963; Ellis &

Beechley, 1951) suggested that families with six or more children had desirable influences that tended to promote emotional and social security in their children whereby anxiety and neurotic behaviour decreased. More recently, interestingly, it has been reported that small families (Al-Awad & Sonuga-Barke, 1992; Mueller & Cooper, 1986; Newman, 1996) gave rise to a higher incidence of emotional and behavioural problems in their offspring. Other studies (Lindholm, Touliatos & Rich, 1977; Yu-feng, Yu-cun, Bo-mei, Mei-Xiang, & Ai Lin, 1989) have found no effects between family size and children's behaviour.

Blake, (1989) suggested that the number of siblings in a family has an important independent effect on educational attainment similar in enormity to parental occupation. The large numbers of siblings in any family dilute family resources. However, they may also serve as an additional source of familial support (LLoyd & Desai, 1992).

What is clear from the preceding review is that the controversy over the effects of family size remains unresolved. This might lead us to suggest that the empirical association between the overall number of siblings and children's adjustment and welfare may vary as a function of culture. For example, evidence from diverse settings in Asia and Latin America document the negative relationship between family size and children's rearing and educational welfare. Whereas, evidence from some African countries suggests that in sharing the burden of domestic tasks and farm work, sizeable number of siblings would give each child a greater opportunity to benefit from family economic and social resources (Mueller & Cooper, 1986). In the same line, Desai (1991) has shown that being born in a large family has significant negative effect on child nutrition in several Latin American countries but no visible impact in several West African countries.

4.3.3.11. Family Structure

The word 'family' does not imply one image: there is enormous variety of families in the world but they are often described in two broad categories, namely, extended and nuclear. The extended family system is described as having a much wider circle of members, including children, parents, grandparents, brothers and sisters who may have their own children, and other immediate relatives (Uzoka, 1979). In contrast, the nuclear family system is described as consisting of the parents and any nonadult children by birth or by legal adoption (Uzoka, 1979). Functionally, the extended family is claimed by its supporters as a large nest that envelops the individual in the warmth of fraternal love and care, developing a network of social duties and responsibilities as well as economic co-operation and communal safeguards (Uzoka, 1979; Badri, 1979; Wilson, 1986; also see Barnes, 1995). On the other hand early family theorists (e.g., Zimmerman, 1947) saw the Western family not only as structurally nuclear but also as functionally atomistic and isolated from wider kin relation. The role each family plays in the child's life may vary as a function of the wider cultural context (Al-Issa, 1982; LeVine, 1974). Nor do family

structures and characteristics remain constant as change has always affected family processes and structures. Apparently, most families in their present forms and character are influenced by long term factors such as evolution, religious and cultural beliefs, and the structures and dynamics of the social groups in which they exist (Bernard van Leer Foundation, 1993). But change may also happen abruptly and dramatically as a result of war, death, divorce, disease, economic and political factors, and natural disasters. Another important factor in affecting family structure is immigration (El Farouk, 1991). Migrant families may wish to maintain their values in the new setting where the reality may sometimes dictate changes in patterns of living or they may also have to face additional problems such as housing and adequate food supply. For example, rural families coming to cities for work, may cut themselves off from the informal support network which may have contributed to their stability as families. To survive, family members may need to redefine their roles and expectations which may include patterns of child-care. When the structures of families change, change may affect the quantity and quality of child-care provided and consequently children's behavioural outcomes.

The sociological description of Western families is often phrased in nuclear terms (Uzoka, 1979). This nuclear family structure is considered characteristic of modern societies and that in this structure lies the difference between modern western societies and traditional societies where wider kinship networks are valued (Wells, 1971). In addition, due to the loss of the traditional functions and changing family membership, extended family attitudes and behaviours were assumed to have disappeared (Demos, 1970). Summing up earlier notions about the western family, Uzoka (1979) reported that in simpler societies the multigenerational family and kin groups remains vital throughout the individual's life span, but in complex industrialised society, kin groups and members of the extended family retain only marginal importance in the individual's life and are largely unacknowledged.

Calling for reconceptualisation of the nuclear family, however, Uzoka (1979) argues that the concept of the nuclear family is just a myth created by earlier sociologists and family theorists who fail to recognise the validity of its psychological functions. He postulates that families may sometimes seem isolated by criteria of geographic distance or economic autonomy, in effect, they are nonetheless functionally extended. He defined these functional features in terms of mutual financial aid among kin, kin support during events and crises, assistance to young parents in child-care and the reciprocal assistance to the elderly members of the kin network. Moreover, he suggests that modern methods of communication have made family separations less permanent and less gloomy.

Recent demographic analyses have indicated that living arrangements are less stable now than they were two or three decades ago (Beck & Beck, 1989; Bernard van Leer Foundation, 1993). In particular, a noticeable trend in many Western countries has been

the decreasing proportion of traditional nuclear families and the rise in the proportion of single-parent families (Beck & Beck, 1989). This increase in single-parent families, in addition to other socio-historical, political, and economic factors have contributed to the prevalence of extended households among minorities (Angel & Tienda, 1987). For instance, in the United States the extended family system persists in black communities because of economic hardships, unemployment, extramarital birth, and divorce or separation (Wilson, 1984). Extended families are deemed helpful in overcoming poverty, racism, and discrimination by providing better conditions for child-care practices (Mc Loyd, 1990). It has also increased the chances for endurance in the face of physical and psychological threats to his survival (Ford, Harris, and Turner, 1991). By their very nature of structure and processes, families are expected to influence the patterns of child development and adjustment.

The fact that much of the literature in this area is based on work in the United States may make it difficult to generalise the results to the whole Western countries. Nonetheless, it is believed that the vast majority of studies continue to address the more general issue of the relationship of grandparents with grandchildren (Hyde & Gibbs, 1993).

In several non-Western societies the extended family system represents the cultural ideal. For instance, in China the extended family system is largely embedded in Chinese religious and cultural heritage that emphasises extended familial ties, loyalty and benevolence towards members of the family, social support, and filial piety among kinship and other social groups (Chan & Lee, 1995). Moreover, grandparents, as a primary characteristic of the extended family, have been recognised by Chinese tradition as an essential source of child-care and household management (Yu-feng, Yu-cun, Bo-mei, Mei-Xiang, & Ai Lin, 1989). However, due to industrialisation, urbanisation and the cultural influence of the West, the nuclear family arrangement in China is reported to have been progressively increasing (Chan & Lee, 1995). This Chinese is mirrored in other countries of South Asia (namely, Hong Kong, Korea, and Japan) where functions, structures, and patterns of the family and the community bear common characteristics and similarities grounded in the Confucian tradition (Park & Cho, 1995). Similarly, several factors mediating family patterns in Bangladesh, and Pakistan such as urbanisation, individualism, division of inherited property, increasing poverty, and immigration are reported to have caused the breakdown of the traditional joint and extended families into the nuclear families (Chowdhury, 1995). Surprisingly, in India families follow a cycle of joint-nuclear-joint structures irrespective of urbanisation and industrialisation (Mullatti, 1995). While nuclear families are prevalent across lower and middle classes in rural regions, modernity has led immigrants from these classes to create joint families in urban settings (Mullatti, 1995).

In rural Africa, the extended family has a much wider circle of members than the word suggests in Europe and North America (Uzoka, 1979). The family includes children,

parents, grandparents, uncles, aunts, brothers and sisters, who may have their own children, and immediate relatives. The family assumes the responsibility of producing all services for their members whether social, economic or psychological. People live closely and undertake communal obligations for mutual support to care for the sick, the aged and children (Seeley et. al, 1992). Africans continue to appreciate extensive affiliations with relatives and others who provide material and psychological support which in turn affect the quality of child-care. Demographic, economic, and technological changes have occurred to varying degrees in African societies, but most of them remain traditional, emphasising the extended family system and social conformity (Kalu, 1992). In these traditional societies the extended family system makes high fertility and big family size desirable and practical (Segal, 1993).

In the Sudan, like many predominantly traditional societies, the family is the dominant social institution within which warmth and physical contact occur. The extended family is the larger social context in which children are socialised in accordance with the Sudanese sense of communal life. While variations of the extended family type still popular in rural areas, in the city a large number of families are now based on the nuclear unit common in western societies. As mentioned earlier in the thesis, the formation and increase of nuclear families was found to be associated with a number of socio-demographic changes within the Sudanese society. This shift in family structure affects the type and quality of child-care such as grandparents' involvement, feeding style, weaning age and children's behavioural outcomes.

The impact of family structure on child development is a popular domain of inquiry. For this reason a brief survey of the relevant literature is thought to be sufficient for the scope of the present thesis. Studies from different parts of the world highlight controversies and debates over the viability of nuclear, extended, and single parent families embedded in various sociocultural contexts. Do they cause or buffer against childhood deviance and disorder? For instance, in the West the nuclear family where values of self-autonomy, individuality and independence originate, consistent with the cultural ideal of the wider society. It is believed to be the ideal situation for adequate parenting and child-care strategies leading to better socialisation and competence for children (see, e.g., Tienda & Angel, 1982; Hofferth, 1984). However, nuclear living arrangements within ethnic and cultural minorities living in the West are associated with inadequate parenting, poor child-care and adverse psychosocial and developmental outcomes (McLoyd, 1990). In contrast, the extended family within these minority communities represents a better home environment promoting both the parents' psychological well being and children's adjustment (Taylor & Roberts, 1995). For example, research from the United States has highlighted the beneficial effects of three-generational living on the mental health of Afro-Americans, mainly due to the help with child-care, advice and support offered by

grandparents to young parents living under psychosocial disadvantage (Wilson, 1986). Black children from disadvantaged backgrounds living in extended families did better at school and showed better psychological adjustment and were more sociable (Wilson, 1986), had higher self-esteem and were more likely to complete high school than black children living in nonextended families (McLoyd, 1990). In line with these findings, studies conducted in Britain to examine the role of the extended family in the lives of people living in Asian communities have shown that levels of childhood maladjustment were lower than in nuclear families (Kallarackal & Herbert, 1976; Shah & Sonuga-Barke, 1995).

The prevalence of single-parent families is increasing in Western societies (Miller & Moore, 1990). It has been suggested that single mothers are likely to experience increased stress. This is thought to adversely affect parenting with mothers being less responsive and less sensitive to child needs (Spieker & Bensley, 1994). However, when single parenthood is accommodated in extended family systems, the quality of parenting and child-care significantly improved and the risks for children decreased (Wilson, 1986; McLoyd, 1990). In this connection, Bird, Gould Yager, Staghezza and Canino, (1989), found that single parenthood was not associated with psychopathology in Puerto Rico and they suggested that family structure as a specific cultural factor had mediated this finding. They suggested that the extended family and other support systems that characterise Puerto Rican society acted as buffers to stress. Similarly, in non-Western societies (e.g., China & Korea) single-parent families were found to be associated with more behaviour problems than nuclear and extended families (Yu-feng, Yu-cun, Bo-mei, Mei-Xiang, & Ai Lin, 1989). Interestingly, extended families in a number of South Asian countries (China, Korea, Indonesia, Seri Lanka, and Pakistan) had been found to have a lower frequency of children's behaviour problems than nuclear families (Yu-feng, Yu-cun, Bo-mei, Mei-Xiang, & Ai Lin, 1989)

In non-Western societies children benefit from attachments to a range of primary caretakers, including the mother, grandparents, uncles, cousins and older siblings. With these people, children enjoy physical contacts, warmth and love, that serve as an important preparation for communal living and co-operative behaviour (Kalu, 1992). This practice differs largely from the emphasis on the independence of the individual usually found in Western cultures. It is believed that the strong ties with and commitment to others increases family cohesion and reduces the risk of separation, divorce and adjustment problems (Bee, 1989).

Studies in some African societies have shown that the physical and social characteristics of the extended family are functionally significant in promoting parenting, child-care practices, and children's psychosocial adjustment (Oyefeso & Adegoke, 1992; Al-Awad & Sonuga-Barke, 1992). For instance, in Kenya, it was found that the quality of

child-care was associated with the socio-economic and educational resources of the family, which in turn were encouraged by extended affiliations (Sigman et al., 1989). In South Africa, childrearing, discipline, socialisation as a shared responsibility between the parents and the extended kin is a long-standing traditional pattern (Liddell et. al., 1991). However, the breakdown of the extended family unit, a common feature of contemporary life throughout sub-Saharan Africa, is reported to have resulted in parents having greater individual responsibility for children, a demand which may have put unusual strains on family life (Liddell et. al., 1991).

In the Sudan, Gotberg & Badri (1992) reported that child-rearing practices differed among traditional, transitional, and modern families. For example the children growing up in the extended family tended to be breast-fed, weaned later and to have more involved grandmothers (Atabani, 1985; Al-Awad & Sonuga-Barke, 1992). In addition, as previously mentioned, the Sudanese extended family was found to be conducive to better adjustment of children (Al-Awad & Sonuga-Barke, 1992). The support given by grandparents to the young mother and the Haboba's involvement in child-care were suggested to mitigate many hazards.

It is worth noting that, despite the vast difference in factors underlying the formation of extended families in Western and in non-Western societies, research on the extended family has confirmed its role in social stability and effective socialisation of children in both settings (Wilson, 1989; Al-Awad, & Sonuga-Barke, 1992).

4.4. In Summary

An attempts was made to review the current trends in child-care and socialisation in the Sudan in the light of an ecological perspective. The relationship between the ecological factors and variations in family life in Sudanese society were discussed in relation to Western and non-Western practices of child-care and development.

There are major differences between Western and non-Western societies regarding child-care and development. This particularly true in the areas of breast-feeding and weaning, physical discipline, living arrangements, family size, and maternal employment.

(i) Although the need for breast-feeding is recognised by both Western and non-western societies, its duration differs considerably due to cultural beliefs and attitudes. In the Sudan, the duration of breast-feeding tends to be longer than in Western societies but is being shortened as Sudanese mothers become more educated and particularly as they are employed in paid jobs.

(ii) Discipline and punishment practices: Parents in non-Western societies tend to be very strict in prompting obedience and submission by physically disciplining their children.

(iii) With regard to family size, non-Western societies continue to appreciate big families while small families remain to be the norm in Western countries.

(iv) While the family in the West is predominantly nuclear in structure the extended family is still popular in non-Western societies despite the fact that the nuclear type is on the increase.

(v) Due to cultural, socio-economic, and religious considerations maternal employment is more highly regarded in the West than in non-Western societies. In addition, mothers in the West spend less time with their children since they are widely accommodated in the labour force.

Having said all this in the Sudan as in various non-western societies there are a range of life styles and approaches to child-care as religious and cultural factors interact with education and social status to determine the type of care that children experience. Traditional families have strong religious beliefs that are expressed as a belief in strict discipline, late weaning, breast-feeding, gender differentiation after the age of seven and the extended family. Families with more modern Western attitudes tend to be more child centred in patterns of discipline, treat boys and girls more equally, wean early and use bottles. They also tend to live in western style nuclear families. In this way the Sudan as a locality for the present study might be considered as representative of non-western societies with its mix of traditional and more westernised life styles and patterns of child-care. The aim of the next three chapters is to explore how these ways of living affect child-care and development.

CHAPTER FIVE

ASSOCIATIONS BETWEEN SOCIO-DEMOGRAPHIC, FAMILY AND CHILD-CARE FACTORS IN THE SUDAN

5.1. Introduction

The chief aim of this chapter is to explore the relationship between the demographic, family, and child-care characteristics of the Sudanese families participating in this study. This chapter will thus provide a base from which we can go on in succeeding chapters to examine the effects of variations in patterns of child-care and family life on children's adjustment.

Investigation of the relationship between these structural variables will add to our understanding of the influence they might exert on children's development. Moreover it is possible to identify which factors interact in producing better outcomes for children's adjustment. Recently, there have been an increased activity aimed at relating patterns of children's development and psychopathology to various aspects of child-care, parents' characteristics and family processes and structure (Holden & Edwards, 1989; Keenan & Shaw, 1994). The interaction between these variables has frequently been implicated as principally responsible for children's behavioural, emotional, personality, and cognitive development (Maccoby, 1992). Consequently, a basic research strategy has been to identify variations in socio-demographic and background variables and correlate these differences with child variables (Holden & Edwards, 1989). For example, in the present study the associations between three sets of variables were examined. Family characteristics, whether the family was small or large, nuclear or extended. Parents characteristics such as occupation, education, mother's employment and level of religiosity. Child characteristics such as age, sex and patterns of child-care.

5.2. Method

5.2.1. Profile of Districts Studied

The sample for the present study was taken from Khartoum and Medani. Khartoum and Medani are regarded as the main cities in the country.

5. 2.1.1 Khartoum

Khartoum is the national capital of Sudan with an estimated population of nearly 3 millions people. Khartoum stands head and shoulders above all other cities of the country in

terms of population. The Khartoum complex (Omdurman, Khartoum, Khartoum North) represents the entire urban population of the province. Migration to Khartoum Conurbation includes migrants from both urban and rural origins. Urban Khartoum is undergoing rapid social change. It is by far the country's leading industrial, commercial and political centre. Its population is steadily increasing by an estimated annual growth rate of 7.4 %(El Farouk, 1991).

5. 2. 1.1 The Khartoum Sample

Three towns in the Khartoum region were initially selected for the study. These were central Khartoum, Khartoum North, and Omdurman. These three towns were divided up into 54 districts (Bushra, 1976). Nine of these districts were selected to represent 3 levels of social status; each district reflect upper, middle and lower socio-economic classes (Table 1).

Table 1: The Khartoum Sample

Area	District	SES	Girls	Boys	Total
Khartoum North	Safia	high	7	8	15
	Sha'bia	mid	8	7	15
	Shambat	low	10	10	20
Khartoum	Riyadh	high	10	10	20
	Sahafa	mid	8	7	15
	Gabra	low	7	8	15
Omdurman	Abrouf	mid	10	10	20
	Thowra	high	8	7	15
	Ishlag	low	7	8	15
Total			75	75	150

5. 2.1.2. The Medani Sample

Medani, the other city where the study took place, is the capital of the central region that accommodates economic and agricultural development schemes. It also has the highest population of towns in the central region of Sudan. Medani is the main urban centre in the region with a population well in excess of one million. Being the major administrative, commercial, and educational centre in the most productive region of the country, both rural-urban migration and natural growth have significantly contributed to its high rate of urbanisation. It is quite similar to Khartoum in terms of urbanisation and demographic features. Three districts out of six were selected. Each district included two areas to represent the three social classes (Table 2). The same process of subjects selection

applied in Khartoum region was also operated here.

Table 2: The Medani Sample

Area	SES	Girls	Boys	Total
Gezira	low	12	13	25
Mayio	low	13	12	25
Banut	mid	13	12	25
Al Awal	mid	12	13	25
Draga	high	12	13	25
Muttar	high	13	12	25
Total		75	75	150

5. 2. 2. Sampling Procedure

The sampling frame for the present study was the population of children between the ages of 6 and 10 years. Children were selected on the basis of social group and sex. Fifty households were selected at random from each social class in each area. In case the target family did not have children in residence, households adjacent to the original target were approached until a family with an eligible child was able to participate in the survey. None of the families approached refused to take part in the survey.

One parent, usually the mother, in the selected family was asked to fill in both the demographic and child-care information. Questionnaires were distributed to account for equal numbers of boys and girls. Wherever there were two or more children in the age range in the same family, the parents were asked to fill in the questionnaire about only one of them selected at random. The total sample consisted of 150 subjects from Khartoum and 150 from Medani reflecting three socio-economic levels.

The procedure represented an attempt to sample across the spectrum of occupation. Because of the immigration of people seeking professional and manual employment, the population in both cities reflects the diversity of tribal and religious identity of the Sudanese people. The present study was conducted in Khartoum and Medani because besides retaining some of the traditional features, they are also witnessing a strong wave of cultural change due to Western cultural influence.

5. 2.3. Questionnaire Design and Construction

The first parts of the questionnaires consisted of questions about a range of demographic, family, and child-care factors. These include:

(i) Parent Characteristics

Age: each family was asked to indicate the father's and mother's exact age.

Level of education: Adults were assigned to one of the three categories. Category 1 included people who had not received formal education at all or who had been educated up to the equivalent of British primary school level. Category 2 included those who had been educated up to secondary level. Category 3 included those who had been educated to graduate or postgraduate levels.

Level of fathers' occupation: This was also divided into 3 categories. Category 1 was for those employed as unskilled workers. Category 2 was for those employed as middle ranking government officials, teachers, and clerks etc. The third category was for businessmen and professionals.

Mother's employment: Mothers were asked whether they were employed or not and if yes what was their occupation. A score of 1 was given for the unemployed mother and 2 for the employed ones.

Parents' religiosity: Parents were asked about their level of religious observance in order to estimate their level of religiosity (good/fair/bad). Scores of 1, 2, and 3 were given to each estimate respectively. Parents religiosity was measured according to a three-point scale in the questionnaire ranging from good (those who always keep observing their religious duties; e.g., mind his/her prayers, reading and studying Qura'n), fair (those who fairly observe their religious duties; e.g., doing prayers, but not keen on reading or memorising Qur'an), and bad (those who do not care about their religious concerns). However, one must be cautious in interpreting religiosity in this manner as it involves self-report.

(ii) Family Characteristics

Family type: In order to judge whether the family was nuclear or extended the respondents were asked about the members of their family in residence. A score of 1 was assigned to the nuclear family type and 2 for the extended type.

Length of residence: Every family was asked to mention in years the length of time of their residence in the town.

Number of children: Finally, the respondents were asked to give the number of children in their families.

(iii) Child Characteristics

Age and sex: Mothers were asked to report the age and sex of the child in the study.

Feeding style: Mothers were asked whether their child was breast-fed or bottle-fed; breast-feeding was given a score of 1 while bottle-feeding was assigned the score of 2.

Weaning age: Mothers were asked to report the age at which their children were weaned.

Toilet training: The mother was asked to estimate the age at which her child was toilet trained.

Language acquisition: The mother was asked to report the age at which her child first learn to speak properly.

Contact time with mother: Mothers were asked the amount of time (in hours) they were in contact with their children during the day.

Contact time with grandmother: Mothers were asked to report the amount of time (in hours) children spent with their grandmother.

Physical discipline: Parents were asked whether physical punishment was used to discipline their children (always, sometimes, never).

Attending the nursery school: Parents were asked how often the children went to nursery (always, sometimes, never). Scores of 1, 2, and 3 were given respectively to the latter two items.

5. 2. 4. Questionnaires Administration

Because of the large scale of this study, the researcher in this study has been assisted by other personnel under his direction. After the general aims of the study had been explained and consent had been obtained, parents were visited at their homes by one of nine psychologist employed by local clinics in Khartoum. These psychologists had received training in conducting the interviews during their training programme. In Medani, 10 final year students of education in Gezira university administered the questionnaire after attending several sessions on administration. All the items included in the final questionnaire were originally constructed, and then presented, to the parents in Sudanese Arabic. To eliminate the hazards of illiteracy, the questionnaire was presented orally.

5.3. Results

Results are presented under three categories: Family, parents and child-care characteristics.

5.3.1. Parent characteristics

Table 3: The Percentage of Parents Characteristics in Medani and Khartoum.

Characteristic	Medani	Khartoum	Statistic
Age			
Mean for mother	35.7 (6.7)	36.7 (6.6)	t = -1.3
Mean for father	45.1 (8.7)	45.4 (7.7)	t = -.23
Education			
Mothers			
% Mother with primary	28	13	χ^2 = 14.2*
% Mother with secondary	70	80	
% Mother with higher	02	07	
Fathers			
% Father with primary	24	04	χ^2 = 31.0*
% Father with secondary	55	55	
% Father with higher	21	41	
Occupation			
% Labourers	37	17	χ^2 = 21.4*
% Officials	24	20	
% Professionals and businessmen	39	63	
Maternal employment			
% Employed mothers	79	70	χ^2 = 3.5 ns.
Religiosity			
% Observant	87	79	χ^2 = 4.3 ns.

NB: Figures in Brackets are Standard Deviations

* $P < 0.0001$

5.3.1.1. Description

5.3.1.1.1. Parent's Age

Table 3 shows the mean and standard deviation of fathers' and mothers' ages in both Medani and Khartoum samples. There were no significant differences between the mothers age and the fathers age in each locality.

5.3.1.1.2 Parents' levels of Education

Table 3 shows the percentage of fathers and mothers who recorded the three different levels of education in Medani and Khartoum. The most common level of education for both men and women is secondary. Fathers progressed to higher education more often than mothers (*14.0% vs 4.7%*). However, the percentage of fathers in the primary group is bigger than those of mothers (i.e. the range of male achievement is wider). Chi-square analysis revealed significant differences between the two locations for both mothers' and fathers' levels of education (*for contingency table see appendix 6*).

5.3.1.1.3 Fathers' Occupation

Table 3 reveals the percentage of each category of fathers' occupation in the Medani and Khartoum sub samples. Considering the entire sample, 27 percent of fathers in these families were labourers, twenty-two percent of them were government officials, and fifty-one percent were professionals and businessmen. It is clear that this category constitutes more than half of the sample. This could be explained by the fact that Sudanese people in urban areas would prefer to work for themselves rather than joining the public sector whatever the size of their enterprise might be. As shown in table 1 businessmen and professionals were concentrated in Khartoum, while the labour group was concentrated in Medani. χ^2 analysis confirmed this relationship (*see appendix 7-a*).

5.3.1.1.4 Mothers' Employment

Table 3 shows the percentage of mother employment in both Medani and Khartoum. Unexpectedly, more mothers were employed in Medani than in Khartoum. In the whole sample only 25.3% of mothers were employed (*see appendix 7-b*).

5.3.1.1.5 Religious Practice

By far the largest proportion of parents rated themselves as being strongly religious. More religious parents were reported in Medani rather than in Khartoum although the difference between the two cities is not statistically significant (*see table 3 and appendix 8*).

5.3.1.2. Associations

Within the whole sample there was a highly positive correlation between fathers' and mothers' age (r =.77). The mean age of fathers was about 10 years above the mean age of mothers (t = 29.93, df = 299, p < 0. 0001). Father's levels of education correlated positively with mothers education (r= .41, see table 1). Chi-square analysis showed significant differences between fathers' and mothers' levels of education (χ^2 = 62. 5 df = 4, P < .0001; *also see appendix 9*). Fathers' education and occupation were also highly related (χ^2 = 79.37, df= 4, p < 0.0001; *see appendix 10*).

There was substantial association between mothers' employment and education (χ^2 =34.897, df = 2, P. < 0.0001; *see appendix 11*). The relationship between mother's education and father's occupation was very significant (χ^2 =21.94, df= 4, p < 0.0002; *see appendix 12*). This would indicate that fathers from high ranking occupations were likely to get married to educated mothers while low educated mothers were likely to have husbands in low ranking occupations. For further evidence for this relationship, mother's employment significantly associated with both father's level of education (χ^2=20.04, df= 2, p < 0.0001; *see appendix 13*) and occupation (χ^2 =17.03, df= 2, p < 0.0001; *see appendix 14*). Table 3 also describes the levels of parental religiosity in both sub samples. There was no significant associations between parent religiosity and parent education or occupation (*see appendix 15 & 16*).

5.3.2. Family Characteristics

5.3.2.1. Description

5.3.2.1.1 Family Structure

Eighty-five percent of the families were found to be of the nuclear type and the other 15% (45) were extended families. Description of family characteristics in both subsamples was reported in Table 5. More nuclear families were reported in Medani than in Khartoum.

5.3.2.1.2 Number of Children

The mean number of children per family in Medani was 5.78; and in Khartoum it was 5.68.

5.3.2.1.3 Period of Residence

Table 4 shows the percentage of family periods of residence in each city. It is clear that a large proportion of families in both cities had been living there for less than ten years. The means and standard deviations for the periods that families have been residing in Medani and Khartoum are almost the same.

Table 4: Shows Family Characteristics

Family Characteristics	Medani	Khartoum
Family type		
%Nuclear	93	77
Period of residence		
% Resides for 10 years period or less	57	45
% Resides for 20 years	25	34
% Resides for 30 years	07	20

5.3.2. 2. Associations

Analysis showed low but significant association between family structure and length of residence (t =-4.364, df= 299, $p < 0.0001$); and number of children (t = -3.422, df=299 $p <$ 0.0007). This result indicates that the longer period of time the family had been residing in the area, the more likely it is to be extended and the more children they have.

5.3.3. Child-care Characteristics

5.3. 3.1 Overall Description

Table 5 compares the boys and girls in the sample on child-care characteristics. Few children were reported to have been weaned in their first year while the majority were weaned between the second and the third years. With regard to toilet training, most of the children were successfully trained by the end of the third year. Breast-feeding was widely adopted in the Sudan. More than half of the children were reported to have regularly attended nursery school. As is shown in table 5 physical discipline was adopted in the Sudanese society as a dominant cultural practice. Towards the end of the third year, most of the children had acquired speech while some of them did not achieve this until the fourth or fifth year. On average daily contact between mothers and children was between 2 and 10 hours. With respect to the average daily contact time (hours) with grandparents about 70% of mothers reported that their children spent under 4 hours with their grandparents.

Table 5: The Percentage Of The Child Characteristics

Child-care	Boys	Girls	Total
Weaning			
% In the first year	05.0	15.0	10.0
% In the second year	44.0	36.0	40.0
% In the third year	51.0	49.0	50.0
Toilet training			
% During the first year	06.6	06.8	06.0
% During the second yea	27.0	37.2	32.0
% During the third year	42.1	35.8	39.0
%During & after the fourth year	24.3	20.3	22.3
Feeding			
% Breast-fed	86.2	88.5	88.3
Attending nursery			
% Never	36.2	29.1	32.7
% Sometimes	18.4	23.0	20.7
% Always	45.4	48.0	46.7
Physical discipline			
% Sometimes	71.7	68.2	70.0
% Always	12.5	06.8	09.7
Learn to speak			
% During the first year	23.0	32.4	27.7
% During the second year	44.1	41.2	41.7
% During & after the third year	34.9	26.4	30.7
Contact hours with mother			
% Between 2 - 6	21.1	18.2	19.7
% Between 6 -10	21.7	27.7	24.7
% Between 10 -14	36.8	39.2	38.0
% over 14	19.5	14.9	17.6
Contact with grandmother			
% under 4 hours	71.7	69.6	70.7
% between 4 & 8 hours	13.2	16.2	14.7
% over 8 hours	15.1	14.2	14.7

5.3. 3. 2. Comparison between Boys and Girls on Child-care Characteristics

It was shown that there was no difference between boys and girls in weaning age (*t = -.83, df=299, ns)*. While boys were significantly less likely to be breast-fed (χ^2 *= 6.56, df =1,p < 0.05; see appendix 17*) than girls, they were both toilet trained by the same age *(t =-1.33, df=299, ns)*. There were no significant statistical differences between boys and girls regarding contact with mothers *(t = -.57)* and grandmothers *(t = .114)* and whether or not attend nursery school *(t = .95)*. Physical discipline was used significantly more with boys than with girls *(t = -2.42, df=299, p <0.01)*. In addition, girls had significantly earlier language acquisition than boys *(t = 1.80, df=299, p < 0.05)*.

5.3.3.3. Further Associations

Analysis revealed a number of associations between some of the child-care factors, although in general these were low. Spearman's rank order correlations showed that levels of attendance at nursery school was associated with grandmother's involvement in child-care (*r* =.17). Weaning age positively correlated with the time at which the child was toilet trained (*r* = .20). Finally, Contact time with grandmother was correlated with weaning age *(r =.13)*. Higher grandmother's involvement was associated with late weaning. There was no association between the other factors.

5.3.4. Data Reduction

In order to explore the associations between demographic, family, and child-care factors, data reduction was carried out for two reasons. First, it led to more easily interpretable analyses of the associations between the various factors. Second, the new calculated factors can be used later on in the thesis in the analysis of the predictors of child behaviour problems. Data reduction was undertaken on the basis of the associations obtained within each category (parent, family, and child-care characteristics) of variables in the previous sections. Associated items were combined into one variable either by simple addition or by using principal component analysis. Where factors were not associated with any other factors original item scores were used. Principal component analysis, for example, was conducted to combine father's occupation and education into one variable (father's status) depending on the obtained factor scores. Table 6 presents the items reduced, the new variables calculated, and method of calculation for the parents', family, and child-care characteristics.

Table 6 Data Reduction Of Parents', Family, And Child-Care Items And The New Created Variables

New Predictor	Items	Method of Calculation
Parents' characteristics		
Parent's age	(i) mother's age	mean
	(ii) father's age	
Father's status	(i) father's education	principal component
	(ii) father's occupation	analysis
Mother's status	(i) mother's education	principal component
	(ii) mother's employment	analysis
parents' religiosity	----	original item score
Family characteristics		
Stable/extended	(i) Family type	principal component
	(ii) period of residence	analysis
Number of children	-----	original item score
Child-care characteristics		
Late weaning	(i) toilet training	principal component
	(ii) weaning age	analysis
High grandparent involvement	(i) attending nursery	principal component
	(ii) grandparent contact	analysis
Contact with mother	____	original item score
Breast-feeding	____	original item score
Smacking	____	original item score

5.3. 4.1. Correlation Between Continuous Predictor Variables

Correlations for the continuous predictor variables are reported in Table 7. Parents' age was significantly correlated with a number of variables; number of children, stable/extended family, and levels of mother contact. Older parents had more children, higher levels of mother contact, and tended to live in extended and long standing families. Educated mothers were more likely to be found in young families. Likewise, high grandparent's involvement in child-care was associated with young families. Number of children negatively correlated with both father's and mother's status. High status families had less children. On the other hand, as expected number of children reflected positive correlations with extended/stable family living and levels of mother contact. Mother's and father's status was correlated indicating strong association in both directions between father's education and occupation, and mothers' education. In addition, mother's status had a low but significant correlation

with high grandparent involvement in child-care. Mothers who were educated and employed had grandparents participating in child-care. In addition, parent's living in extended and stable families tended to wean later. Surprisingly this variable was also negatively correlated with high grandparental involvement in child-care.

Table 7: Associations Between Parents, Family, And Child-Care Variables

	Variables	1	2	3	4	5	6	7	8	9
1	Age	-	-	-	-	-	-	-	-	-
2	Nos. children	32****	-	-	-	-	-	-	-	-
3	Father status	.05	-.14**	-	-	-	-		-	-
4	Mother status	-.12*	-.19***	.31****	-	-	-	-		-
5	Family	.12*	.17**	-.06	-.18***	-	-	-		-
6	High/G-inolv	-.11*	.04	.08	.11*	.32****	-	-	-	-
7	Mother cont	.15**	.11*	.04	-.09	.18***	.02	-	-	-
8	Smacking	-.02	.01	-.06	-.01	.02	.04	-.03	-	-
9	late weaning	.06	.03	-.03	-.08	.20***	.07	-.01	-.01	-

Note: *= p<.05 **= p<.01 ***=p<.001 ****= p<.0001

5.3.4.2. Associations between Discrete and Continuous Variables.

5.3.4.2.1. Breast-feeding

The association between breast-feeding and all the other variables was explored using t-tests. This allowed the pattern of child-care and family factors to be compared for breast and bottle fed children. Results showed that type of feeding could be discriminated only on the basis of parents age (*t= 2.01, df= 298, p <0.05. See table 8).* This might suggest that breast-feeding occurs with more traditional parents. Younger parents who tend to be more educated and modern prefer to use the bottle.

Table 8: Association Between Breast-feeding And The Other Variables

Variable	*t*-value
Age	2.01*
Children	-0.60
Father status	1.50
Mother status	-1.60
family	0.50
High grandp.inolv.	-0.30
Mother contact	-0.80
Smacking	-1.00
Traditional-care	-0.29

* $p < 0.05$

5.3.4.2.2. Religion

In a similar way the association between religious practice and the other variables was calculated. Level of religious observance could be discriminated by three variables (Table 9). These were number of children in the family ($t = 3.3$, $df = 297$, $p < .001$), mother contact with child ($t = 2.04$, $df = 298$, $p < .05$), and traditional style of child-care ($t = -1.95$, $df = 298$, $p < .05$). The more religious the parents rated themselves the more children they had, the more time they spent with their children and the more likely they were to wean later and breast-feed. The association between breast-feeding and religiosity was explored using a chi-square analysis. This showed no significant association ($X^2 = .96$, $df = 1$, $p < .33$; *see appendix 18*).

Table 9: Association Between Religiosity And The Other Variables

Variable	*t*-value
Age	-0.1
Children	3.3**
Father status	0.4
Mother status	0.2
family	-1.1
High grandparental involvement	-0.2
Mother contact	2.0*
Smacking	-0.8
Traditional-care	-2.0*

* $p < .05$ ** $p < .001$

5.3.4.2.3. Sex

The analysis of sex and child-care factors confirmed the previous analysis by showing that smacking was the only variable significantly associated with gender *(t= -2.4, df= 298, p< .01 see table 13).*

Table 10: Association Between Sex And Child-Care Variables

Variable	*t*-value
Breast-feeding	-0.1
High grandparental involvement	0.7
Mother contact	-0.6
Smacking	-2.4*
Traditional-care	-1.4

* *p <.01*

5.3. 4. 2. Multivariate Predictions of Demographic, Family, and Child-care Variables

Having explored the univariate associations between variables, it is clear that a complicated pattern of inter-correlations exist between the different variables. In order to explore the relative contribution of variables in cases where multiple associations have been found standard multiple regression analyses were employed. The standard multiple regression presents each association as if all the variance from the other predictors has been already partialled out. In particular, the factors that could predict number of children, high grandparent involvement in child-care, and traditional style of child-care as outcome measures were examined in this way. In each of these models predictor variables were limited to (i) those variables that had significant univariate associations and (ii) were thought to be potential antecedents of the particular outcome variable. For instance, while it is unlikely that religious traditionalism is the result of strict discipline, it is quite likely that strict discipline is the result of religious traditionalism. In this case religious observance would be seen as a potential cursor of disciplinary style and not the other way around.

5.3.4.2.1 Number of Children

Parents' age, parents religiosity, mother and father's status and extended family were introduced as the predictor variables into a regression analysis with number of children as the outcome. The high value of the multiple correlation *(R= .41, p<0.005)* highlights the predictive quality of the overall regression model. All but one of these variables accounted for significant proportions of the variance in the number of children.

Table 11: Variables Predicting The Number Of Children

Factors	Beta	*t*-value	Probability
Father status	-.08	-1.4	<.15
Mother status	-.14	-2.5	<.01
Family (ext)	.11	2.0	<.05
Parents' age	.28	5.0	<.0001
Parents' religiosity	-.16	-2.9	<.004

This analysis suggests that even when parents' age is controlled for, other variables account for important proportions of the variance. More religious parents have more children; educated and employed mothers tended to have fewer children and extended families had more children.

5.3.4.2.2. High Grandparent Involvement in Child-care

Extended /stable family and mother's status were introduced along with parent's age into a regression analysis with levels of grandparental involvement in child-care as the outcome variable. Once again, the multiple correlation of the overall regression model *(R=.54; p <0.0001)* would indicate very good associations between these variables and grandmother's involvement in child-care. With regard to the importance of the specific variables one is struck by the strong predictive value of the extended family. Likewise, the level of mother' status appeared as a very significant predictor for grandmother's involvement in child-care. This would imply that educated or employed mothers were likely to receive grandparental support in child-care activities, or low educated and unemployed mothers living in traditional families where grandparents' involvement in child-care was documented. Another significant predictor was parents' age. Older parent's living in extended and stable families had children who spent a lot of time with their grandparents.

Table 12: Variables Predicting High Grandparent Involvement In Child-Care

Factors	Beta	*t*-value	probability
Parents' age	-.11	-2.0	<.05
Family (ext)	.34	6.2	<.0001
Mother status	.13	2.7	<.008

5.3.4.2.3. Time Spent with Mothers

Parent's age, family type, religious observance and number of children were all included in a multiple regression analysis as predictors with contact with mother as the outcome variable. All of these factors approached significance. However, the modest value of the multiple correlation *(R= .17, ns)* was indicative of the weak associations between mother-child contact and the other factors. With respect to amount of time mothers spent with their children none of the factors that correlated with this variable had proven a significant predictor in the multivariate context (Table 13).

Table 13: Variables Predicting Child's Contact With Mother

Factors	Beta	*t*-value	Probability
Parents' age	.09	1.6	<.11
Family (ext)	.08	1.4	<.16
Religion	-.06	-1.2	<.24
Children	.06	1.1	<.28

5.3. 4. 2.4. Early Weaning

Only two variables were included as predictors (family type and religious observance) in the multiple regression analysis of the influences on time of weaning and toilet training. Table 14 showed that the extended family type was the only significant predictor for late weaning. The value of the multiple correlation was moderate *(R= .19; p < .006)* reflecting the good relationship between parents' religiosity and the extended family as a predictor of late weaning.

Table 14: Variables Predicting Late Weaning

Factors	Beta	*t*-value	Probability
Family (ext)	.16	2.7	<.006
Religion	.11	1.9	<.06

5.4. Discussion

The aim of the present chapter was to explore the relationship between different characteristics of the ecology of child rearing in urban Sudanese society before going on in subsequent chapters to look at how these factors related to the behaviour of Sudanese children. Before going on to discuss these results a word of caution is required. The results of the present study may be influenced by factors not examined here. It is possible that mothers' reports were affected by some systematic bias in reporting demographic information and child-care styles. Differences in reporting might be due to variations in education, literacy or the general awareness of this study. Despite this, the general pattern of association between these demographic factors should give the reader confidence of the validity of the data discussed here. However, while the links between socio-demographic variables were clear and intuitively meaningful the links between these and child practices were for the most part weak. This fact should be taken into account when examining the results of the present study. In many ways the relationship between demographic, family factors, and child characteristics found in this analysis were as one might expect. However, there are a number of particular findings that it is worth pointing out.

5.4.1. The Small Number of Extended Families in the Sample

Turning to family structure, the most interesting finding related to the surprisingly small number of families that could have been considered extended in structure. A far smaller proportion of the current families were extended than in previous studies. There could be two reasons for this. First, it might be that it was a sampling problem and was related to the overrepresentation of upper class families in the study. On the other hand it might accurately represents the accelerated reduction in traditional living that has occurred since previous figures were gathered.

5.4.2. The Meaning of Social Status in Sudanese Society

Our data suggest a clear relationship between education, employment and marriage, well educated men get better jobs and marry better educated women who tend to go out to work. This is not surprising but is not trivial either. This is because it suggests that a class structure does exist, which is perpetuated by marriage and education, and our way of indexing it was reasonable. Therefore, level of education remained to be the most important element in determining family status as it determined to a large extent the type of occupation a man had and represents an area where educated people would meet together. A previous study in the Sudan (Taha, Ali & Al-Awad, 1985) showed that the rising intake of female students in colleges of higher education was motivated by their aspiration to play a fundamental role in the society in order to achieve self-fulfilment and to gain social recognition. The present results also support previous findings (Grotberg & Badri, 1992)

that men receive more education than women, regardless of socio-economic level, and that high-income men receive more than low-income men.

5.4.3. Migration, Urbanisation and Family Structure

Migration to urban centres is often considered the main factor contributing to the breakdown of the traditional extended family and the emergence of the nuclear family type. This position received only partial support from the present study. This is because while recent settlers tended to live in nuclear families the longer the family had been resident in their current location the more likely prefer to be extended in nature (Quinton, 1988; Al-Awad & Sonuga-Barke, 1992; Grotberg & Badri, 1992). This suggests that while migration may initially lead to the breakdown of the traditional extended family to be replaced by the nuclear arrangement as links with the rural community are broken, the more traditional structure reasserts itself over time. Interestingly the proportion of extended families did not vary as a function of other demographic variables suggesting that this form of living was equally popular across social groupings.

5.4.4. Social Status and Traditionality

It has been assumed in the past, and in the introduction to this chapter that social status and tradition are linked. The idea that lower class, less educated members of a non-Western society adopt more traditional approaches to family life pervades the literature. In this respect it is very interesting to note that there were no substantial link between these two factors in this study. Lower class families were not more likely to be religious or to live in extended families than high class families. Perhaps the idea of the modern, educated, Westernised elite, while applicable to some developing countries holds no water in the context of a society like the Sudan.

5.4.5. Family Structure and Traditional Child-care Practices

Living in extended families was associated with a number of practices recognised as traditional. First extended families had more children. Second, they tended to wean and toilet train children later. Third they allowed grandparents to have more contact with children (Al-Awad & Sonuga-Barke, 1992). This evidence supports the idea of a relationship between structural and functional features of the ecology of Sudanese society.

However, there was no relationship between family structure and the likelihood of breast-feeding. This finding is not in line with previous literature which suggests a strong link between indices of traditional attitudes and the choice of breast feeding. It is possible that in a society like the Sudan the overriding popularity of breast feeding makes a poor discriminator of parenting attitudes.

5.4.6. The Predictors of Family size

Rasul (1993) discussed some conceptual and methodological issues in measuring family size. He pointed out that surveys vary widely in the wording of questions used to measure this concept and there are many assumptions in the literature about the nature of the decision regarding number of children in a family. For instance, he argued that in some cases, the individual's choice is ignored and the focus is on societal decisions based on norms and values of child bearing and rearing. In others, the emphasis is on the individual as a decision-maker as satisfying his personally defined objectives. Furthermore, interrelated spiritual, social and physical realities define the cultural context within which the decisions are made.

In the present study the number of children in the family was predicted independently (as expected) by parents' age, parents religiosity, mother status and extended family living.

(i) Parent's age ; Old parents had more children. Apart from the obviously greater opportunity for more children afforded by the passing of years it is possible that older parents are more traditional in their attitudes towards childbearing behaviour than younger parents (LLoyd & Desai, 1992; Rasul, 1993; Indralal De Silva, 1992). This is supported by research in Sri Lanka, where there was a clear preference for smaller family size among younger women (Indralal De Silva, 1992).

(ii) Parental religiosity; More religious parents have higher number of children. In the Sudan one would expect this, as religion is directly related to the traditional approach to child development (Badri, 1979). In fact Islamic teachings preach breeding of children as a blessing. In Sri Lanka, Indralal De Silva (1992) examined the effect of a combined ethnicity/ religion variable on number of children in Hindu, Tamil, and Muslim groups. He reported that the Muslim group had the highest ideal family size. The investigator attributed this finding to the fact Muslim women in Sri Lanka are largely traditional in outlook and more often support pronatalist ideals than other women. It is not only in traditional societies but also in some Western countries that religious belief colour decisions of family size preferences. For instance, Liao (1992) showed that families influenced by Catholic teachings and practices still contribute to higher fertility behaviour.

(iii) Mother's status; Furthermore, our findings indicated that educated (high status) mothers had fewer children. A number of studies have shown that a small family norm is encouraged by a number of socio-economic factors, especially the concept of modernisation (Blake, 1989; Grotberg & Badri, 1992; Indralal De Silva, 1992). Women from the social class with greatest exposure to modern ideals may express a

preference for small families. For instance, in the present study, high status families tended to have less children and adopt a less traditional approach to child-care. This study indicated that mothers of high status came from the upper class (i.e. were married to professionals). In this respect, Grotberg & Badri (1992) reported that the average number of children per family in Sudan is higher for low-income than for high-income families (Grotberg & Badri, 1992). Educated mothers' inclination to have fewer children could be explained, apart from the influence of modernity, in terms of the long schooling years that might have delayed their marriage. In Sri Lanka, Indralal De Silva (1992) reported that across all ages more educated women preferred smaller families. Young women were better educated and more modern in their outlook than older women and therefore were more likely to use family planning measures to maintain small family size as a personal preference (Indralal De Silva, 1992). Preferences for smaller families in Pakistan were found to be consistently associated with modern attitudes and behaviours towards family and religious values and obligations (Zafar, Ford, Ankomah, 1995). Early marriage and preference for larger families among women in Indonesia, Egypt, and Jordan was reported to have substantially declined over the last few decades due to increased women's educational attainment and employment (Heaton, 1996). In addition, as in the West, educated mothers in the Sudan were expected to participate in the labour force, which might contribute to the decline in family size

(iv) Family structure; Families with an extended structure had more children independently of other factors. This could be accounted for by the idea that the extended family is a buffer against modernising influences in Sudanese society.

5.4.7. Levels of Mother Contact was not Predicted by Cultural or Structural Variables.

It is generally held that a lack of adequate contact between mother and child represents a risk for development (LLoyd & Desai, 1992). There are a number of factors that might influence the level of mother contact with her children. For example, social contacts, household help, and employment were found to differentially predict mother-child interaction (Weinraub & Wolf, 1983). In the present study, there were no significant predictors of levels of contact. This might suggest that Sudanese mothers were committed to a satisfactory level of contact with their children regardless of any other influences.

5.4.8. Sex Differences in Disciplinary Practices

With regard to gender differences, Grotberg & Badri (1992) reported that in the Sudanese society families seem to use similar child-rearing practices for both boys and girls at young ages. In general our findings support this. However, there was a difference in the

use of physical discipline. Parents reported using corporal punishment with boys more than girls. This confirms the view that Sudanese parents are easy, warm, and considerate with girls in order to inculcate in them feminine qualities while being so strict with boys to reinforce the masculine characteristics in their characters.

5.4.9. Reflections on Tradition and Family Functioning

Having highlighted features of the data of interest the final section of this chapter will focus on two traditional features of Sudanese family life that give an insight into the significance of the cultural setting for this study.

5.4.9.1. Grandparents, Extended Families and Child-care.

There is evidence that both direct and indirect involvement of grandparents in child-care positively affect the child's cognitive and socio-emotional development (Bandura, 1986; Al-Awad & Sonuga-Barke, 1992). The present study found that direct involvement of grandparents in child-care practices positively affect care-giving processes particularly feeding, weaning, and other socialisation aspects. This appears to be consistent with other findings in both non-Western and Western societies. For instance, African children benefit from a good mutual attachment with grandparents as they enjoy physical contacts, warmth and love (Kalu, 1992). In America, Kivett (1993) found that blacks had more contact with grandchildren and higher normative expectations for assistance than corresponding white children.

5.4.9.2. The Influence of Religion

Our results have shown that parents' religiosity predicts the number of children in the family (i.e.family size) and grandmother's involvement in child-care. This could be interpreted as the more religious the parents are, the more likely the family is to have many children and to have more grandmother's involvement in child-care activities.

Although these results indicate no direct causal relationships between parents' religiosity and individual differences in feeding and weaning patterns, disciplinary practices, and family structure, it is clear that religion has had a major influence on the norms that govern parenting in Sudanese society. For instance, 88.33% of children in our sample were breast-fed and about more than 50% were weaned after the completion of the second year. This position stems from deep-seated religious beliefs which spell-out in detail that breast-feeding is highly recommended and weaning is more explicitly recommended towards the end of the second year of age. As previously mentioned, in non-Western societies the main factors influencing breast-feeding and late weaning were found to be religious and cultural aspects (Prothero, 1961; Atabani, 1985). Particularly, in the Sudan, Atabani (1985) reported that mothers who preferred breast-feeding and late weaning

mentioned that they had been influenced by Qur'an. Similarly, physical discipline in both Western and non-Western societies has been associated with religious influences. For example, Straus (1991) reported that physical punishment is deeply rooted in Euro-American religious and legal traditions. In the Sudan, Grotberg & Badri (1992) concluded that discipline with physical punishment is generally preserved because obedience and respect for parents and others are essential. It is believed that it is the religious parents' responsibility to indoctrinate these values to their child either by example or by physical discipline. Besides immigration, socio-economic, and cultural factors, religion has also been a determinant of family structure (Poston, 1990; Segal, 1993; Hunderson et al., 1992; Badri, 1979; El Farouk, 1991). While this influence of religion on family structure has been observed in some industrial countries, its strong effect is clearly documented in most of the traditional and developing countries. Particularly in the Islamic and Arab world where breeding of children and affiliation to extended family type have been primarily motivated by religious commands and examples (Alwani, 1970; Badri, 1979).

4.10. Link with Bronfenbrenner's Ecological Perspective

Bronfenbrenner's call to widen the context of human development and growth to incorporate micro and macro-cultural factors has had a major impact on development studies. He argues that if we are to describe development accurately, we need to describe the total setting in which it takes place. The present study was prompted by the same conception. It views children as growing up in a rather complex social environment which includes a range of people such as brothers, sisters, parents, grandparents, relatives, friends, and school-teachers. And this setting is itself embedded in a wider social system that would directly or indirectly influence the processes of development. For example, we examined structural socio-demographic changes reflected in the distribution of family types, job opportunities, and education. The functional changes that these factors cast on child-care practices were also explored.

In terms of Bronfenbrenner's ecological model the present study investigated the family as a Microsystems in terms of patterns of child-care activities, roles, and interpersonal relations experienced by the developing child in *"a given face-to-face setting with particular physical and material features,"* that contains parents, siblings, and grandparents as *"persons with distinctive characteristics of temperament, personality, and systems of beliefs"* (Bronfenbrenner, 1989 p. 227).

Examination of the relationship between the conditions of maternal employment and the child in this study fulfil the condition of what Bronfenbrenner defined as exosystem. For instance, the relations between mother's working situation and family interaction patterns which do not involve the developing child "directly as a participant", but which influence processes of child-care ("operating at level in which the developing child is directly

involved") was explored. The macrosystem which reflects the characteristics of the overall cultural context is clearly represented in studying the instrumental and functional impact of religion and culture upon child-care activities. Mesosystem, the next level up to the microsystem, involves *"relation between two or more settings in which the developing person is an active participant"* could be reflected in the family-school relations which will be examined in the next chapter. The interactive force between these systems which we explored appears to be essential to the understanding of the social and physical environment in which the child is growing or as Bronfenbrenner, (1979) argues that such interrelations can be as crucial for development as events taking place within a given setting. In other words, the nature of developmental processes change as a function of a person's exposure to and interaction with the environment (Bronfenbrenner, 1979).

Considering the environment as a multi-level system, the ecological approach emphasises the importance of the culture-specific meaning of behaviour and the context for social and emotional development. In the same breath, the present findings imply that the associations of demographic correlates and child-care activities are conditional on cultural context. Differences in cultural beliefs and practices might affect the direction and intensity of those associations.

To conclude, in keeping with an ecological approach this chapter attempted to examine the relationship between socio-demographic, family, and child characteristics. Interconnections between demographic, family factors, and child characteristics were demonstrated. The findings in a number of ways were consistent with previous studies. Thus, providing further empirical support to an ecological basis to understanding of child-care and development.

CHAPTER SIX

THE STRUCTURE OF CHILDREN'S BEHAVIOUR PROBLEMS IN THE SUDAN

6.1. The Development of Measuring Instruments

The primary aim of the research reported in this chapter was to provide a valid and reliable instrument that will give us a measure of the Sudanese child's adjustment in a range of domains. There are a number of reasons why such an instrument is important. First, before the relationship between Sudanese children's behaviour problems and the socio-cultural context in which they live can be studied an effective means of identifying and quantifying behavioural deviance must be provided. Second, such an instrument will allow us to compare the structure of problems within the Sudan with those in other cultures. In turn this will allow us to examine issues of universality and relativity in the expressions of behaviour problems. Third, within the Sudan, as within many traditional societies in transition, there is an urgent need for such an instrument that would allow practitioners to make an accurate assessment of problems that would provide the basis for effective intervention.

6.2. The Requirements of the Current Study

Being aware of the merits, limitations of/and methodological issues surrounding the use of behaviour rating scales and the limited value of the Sudanese Behavioural Scale (Al-Awad & Sonuga-Barke, 1992), outlined in chapter 4, the present chapter tries to adapt a standard instrument primarily developed in the US to the Sudanese society. While this study does not involve a comparison of problems in two different cultures, the standardisation of such an instrument will not only provide an effective means of identifying and quantifying behavioural deviance in the Sudan but will also allow us to compare the structure of problems within the Sudan with those in other cultures.

In what follows the development of parent and teacher rating scales for the assesment of childrens' problems in the Sudan will be described. These instruments, based on the CPRS and CTRS as described earlier (sections 4. 2.1.1.4. & 4.2.1.2.3.) were modified so as to include a number of areas of functioning of specific importance to Sudanese society, and to exclude a number of items that would be either difficult to translate or which would be disturbing or distressing to Sudanese parents. Following the application of these questionnaires to a representative sample of normal school children in the Sudan the instrument was refined by excluding items on psychometric, epidemiological or psychological grounds.

We should remember here that the Sudanese Behavioural Scale (Al-Awad & Sonuga-Barke, 1992) was not used as a measure of childhood behaviour problems because, as mentioned earlier, it did not satisfy the aims of the present investigation (see chapter 4 section 1.5). The Conners rating scales appears to be suitable instruments for the assessment of childhood behaviour problems in the Sudan because they are very popular tools in the diagnosis and epidemiology of children's behaviour problems and several studies have established their norms and examined their factor structure (Glow, 1981; Goyette, Conners, & Ulrich, 1978; Werry & Hawthorne, 1976). They have adequate psychometric properties (Conners, 1969). Moreover, with good reliability across cultures (Luk, Leung, and Lee, 1988), they have been widely used for cross-cultural comparisons (Luk, et. al, 1988; Shalev, Hartman, Stavsky, & Sergeant, 1995). Although issues of cross cultural prevalence of problems will not be addressed in this study for the reasons outlined above, an attempt was also made to compare the findings with studies using the Conners Scales in other countries. In this regard a number of questions will be raised in this chapter.

-First, in the psychometric sense, to what extent did these new versions of Conners Rating Scales serve as a reliable instruments for the assessment of children's behaviour problems in the Sudan?
-Second, did ratings by Sudanese parents and teachers have a similar factor structure and profile as those obtained in other similar studies in other cultural settings?
-Third, did parents' ratings agree with those made by teachers?
-Fourth, did Sudanese parents observe significantly more deviant behaviour in their children than did teachers?

6.3. The Development of the Teacher's Questionnaire

6.3.1. Method

6.3.1.1. Participants

300 children were selected for this study according to the procedures described in chapter five. Test re-test reliability data was calculated on the basis of a randomly selected sub-sample (N=16) of the total sample.

3.1.2. The Instrument

The original items were those included in the 39 item CTRS (Appendix 3-A). Each item described a problem behaviour to be rated by the parent on a four- point scale (1-4) according to the behaviour of an individual child over the previous month. The scale points were: Not at all present (scored 1); just a little (2); pretty much (3); and very much (4). In order to accommodate the linguistic and cultural differences between the US and the Sudan

the scale was translated into Sudanese Arabic (see Appendix 3-B). To check that the translation had satisfactory reliability back-translation by a different person competent in both Sudanese Arabic and English was performed. This revealed substantial agreement between the original English version of the instrument and the back translated version. Where differences occurred these were minor. In these cases both wordings are reported in the text.

6.3.1.3. The Procedure

Following parental approval, the children's classroom teachers were approached and asked to complete the questionnaire. All 300 teachers co-operated with this. For the teachers the questionnaire was completed in a written form. With the test re-test reliability calculation the teachers completed the questionnaire for the same child on two separate occasions, two weeks apart.

3.2. Results

6.3.2.1 The Selection of Items for Inclusion.

Items[1] were excluded from further analysis for a number of reasons.

a- Abnormality of response distribution (i) high frequency of problem rating : Items with 35% of responses scoring 3/4 were deemed too common to be considered culturally relevant problems. (ii) Infrequency of problem: items with less than 7% of respondents rated as 3/4 were seen to be too uncommon to be included in a questionnaire on general adjustment.

b- Outlying items: the reliability of a final factor structure depends on the inter-correlation of items to total item set being sufficiently high. Because of this, items with multiple R's of less than 3 were excluded from the data set.

c -Duplication & redundancy of items: where two items were highly correlated and had similar content one item was removed from the data set.

6.3.2.2. Distribution of Problems Across the Original Items

Table (1) shows the ratings for each item. In employing the criteria for item selection described above, three items were excluded on the basis of abnormality of response distribution. The item (Unable to defend himself) had high frequency (41.7%) of responses scoring 3/4. The other two items (lies and / steals) had a low frequency

[1]Missing values were estimated by calculating the means from available data prior to analysis (Tabachnick & Fidell, 1989). The mean for each item having a missing value was calculated and then inserted to replace the missing values. This method has the advantage of reducing the variance of the variable because the mean is closer to itself than to the missing values it replaces.

Table 1: The Proportion Of Children Scoring 3 Or 4 On The Teacher's Questionnaire In Order Of Size.

Item	Pretty much	Very much
Unable to defend himself	19.7	22.0*
Shy	15.3	16.7
Easily influenced and led	11.0	13.3
Fidgeting	10.7	11.3
Makes unusual noises	10.0	07.7
Easily frustrated	11.0	10.0
Restless	05.3	07.3
Excitable (irritable)	10.7	08.3
Inattentive	10.7	06.3
Fails to complete things	11.7	08.0
Sensitive to criticism	09.3	12.3
Too serious or sad	11.7	07.0
Has fantasies	09.7	07.0
Has unpleasant face	10.3	05.3
Cries easily	08.7	07.0
Disturbs other children	07.0	06.7
Quarrelsome	06.0	05.0
Moody	07.0	06.7
Destructive	06.7	05.0
Easily gets angry	03.3	03.7
Isolated	06.0	04.3
Not liked by other children	06.0	03.3
Doesn't like playing	07.0	09.0
Lacks leadership	07.7	09.0
Uncomf. with opposite sex	08.0	06.0
Uncomf. with same sex	06.3	03.3
Teases other children	09.0	08.0
Submissive	10.7	15.7
Fearful	07.3	16.7
Impudent	08.0	15.0
Needs more attention	07.3	04.7

Table 1 cont.

Table 1 cont.

Stiff-minded (obstinate)	06.3	04.0
Uneasy to please	06.3	04.3
Unco-operative	04.0	04.3
Has truancy	04.0	04.3
Poor muscle co-ordination	05.2	04.7
Pretending to be quiet	06.3	03.3
Steals	04.0	02.7*
Lies	03.7	01.3*

NB: Asrterix Marks Items To Be Excluded.

3.2.3. Test-retest Reliability

Reliability is generally seen as one of the most important considerations in variable selection for all analyses. It estimates the stability of position for a given score in a distribution of scores when measured at different times or in different ways. It is believed that reliable variables enhance analysis while unreliable ones reduce it (Tabachnick & Fiddel, 1989). In the present study correlation coefficients were computed from the test and re-test scores. Table (2) shows these correlations. Almost all items obtained satisfactory correlation coefficients. Only two items had very low correlation coefficients. These were: has poor muscle co-ordination (.18), and pretending to be quiet (.21). These items were omitted from the scale.

Table 2. Results of Test-retest Correlation.

Item	*r*
Inattention	.97
Uncomfortable with same sex	.96
Teases other children	.94
Restless	.90
Has fantasies	.90
Stiff-minded (obstinate)	.90
Has truancy	.88
Excitable (irritable)	.87
Sensitive to criticism	.82
Easily gets angry	.80

Table 2 cont.

Table 2 cont.

Cries easily	.79
Submissive	.78
Not liked by other children	.75
Impudent	.75
Uncomfortable with opposite sex	.73
Shy	.71
Doesn't like playing	.70
Uneasy to please	.69
Needs more attention	.69
Lacks leadership	.69
Makes unusual noises.	.67
Disturbs other children	.65
Has unpleasant face.	.65
Quarrelsome	.65
Destructive	.64
Too serious or sad	.63
Isolated	.62
Moody	.60
Fidgeting	.57
Fails to complete thing	.50
Unco-operative	.47
Fearful	.44
Easily frustrated	.43
Easily influenced or led	.43
Pretends to be quiet	.21*
Poor muscle co-ordination	.18*
Previously excluded items	
Unable to defend himself	.83
Lies	.80
Steals	.46

N.B. Asterix marks excluded items.

6.3.2.4. Principal Components Analysis

In order to identify significant patterns of covariation, factor analysis was used with the eventual aim of reducing the number of variables to facilitate interpretation and future analysis. Teachers' responses on the 34 items still remaining were analysed to a principal components solution. The derived factors were rotated to an orthogonal structure using varimax criterion. Roots greater than 1 were extracted. The chief objective of the extraction step in exploratory factor analysis is to determine the minimum number of common factors that would satisfactorily produce the correlation among the observed variables (Tabachnick & Fidell, 1989). This produced nine factors (see Table 3). In keeping with Conners criterion, items with loadings of .40 or greater were regarded as loading on the factor. In addition, only one loading per item was permitted. Table 3 shows the items loading on these factors as well as the amount of variance accounted for. Together these factors accounted for 58.1% of the variance. Thirty-one out of 34 (91.2%) items were loaded at .4 or above.

This factor structure suggested that teachers' ratings of Sudanese children's behaviour problems are organised in a coherent and intuitively appealing way. Because of the items loading, these factors were called: Factor (1) conduct problems, (2) anxious - fearful, (3) fidgeting (4) hyperactive, (5) sensitive, (6) unhappy, (7) weak character, (8) unsociable, and (9) impudent. This factor structure shares much in common with those found in Western studies with clear distinctions between internalising and externalising problems at least expressed in the narrow bands and between conduct problems and hyperactivity type problems.

Table 3: The Items Loading And Cronbach's Alpha Coefficients For Each Factor

Factor	Loading
Factor I: conduct problems (22.9% of the original variance) α= **.80**	
Disturb other children	.64
Easily gets angry	.63
Quarrelsome	.61
Unco-operative	.57
Has truancy	.54
Uncomfortable with sane sex	.53
Destructive	.50
Factor II: anxious-fearful (7.2% of the original variance) α=**.68**	
Does not like playing	.68

Table 3 cont.

Table 3 Cont.

Lacks leadership	.66
Fearful	.58
Feels uncomfortable with other sex	.57
Needs more attention from teacher	.49
Factor III: fidgeting (6.3% of the original variance) α=**.55**	
Fidgeting	.66
Teases other children	.57
Easily frustrated	.43
Factor IV: hyperactive (4.4% of the original variance) α=**.58**	
Fails to complete what he/she starts	.71
Restless (anxious)	.58
Inattentive	.44
Factor V: sensitive (4% of the original variance) α=**.48**	
Too serious or sad	.75
sensitive to criticism	50
Has fantasies	.47
Factor VI: unhappy (3.8% of the original variance) α= **.52**	
Has unpleasant face (sullen)	.69
Cries easily	.62
Stiff-minded (obstinate)	.45
Factor VII: has weak character (3.3% of the original variance)α=**.37**	
Easily influenced or led	.65
Factor VIII: unsociable (3.2% of the original variance) α=**.54**	
Not liked by other children	.78
Isolated	.47
Has fantasies	.40
Factor IX: impudent (3% of the original variance) α= **.28**	
Impudent	.62
Submissive	.53
Makes unusual noise (hums)	.45

6.3.2.5. Internal Consistency

In order to assess the internal reliability of items contributing to each factor Cronbach's alpha coefficients were calculated (see Table 3). A total coefficient alpha would indicate the acceptability level of a reliable scale (Cramer, 1994). Conduct problems and Anxious-

fearful factors had good levels of reliability. Four of the remaining factors showed an acceptable level of internal reliability. However, 7 items were dropped from further analyses because they were contained in factors either with only one item or they had an alpha coefficient of less than .5 (sensitive, weak character, and impudent factors). This is because the interpretation of factors defined by only one or two items is generally thought to be difficult and low alpha coefficient indicates less homogeneity of items (Tabachnick & Fidell, 1989).

6.3.2.6. The Distribution of Problems within the Population

Scale scores were calculated for the remaining 6 factors by adding the item scores contained within each factor; These were conduct problems, anxiety, fidgeting, hyperactivity, unhappy, and unsociable. This was done by adding the raw scores for each item loading on that factor. Figures below (1-6) show the distribution of scores on each of these scales within the population of the 300 children.

Figure 1: Bar Chart of Conduct Problems Scores

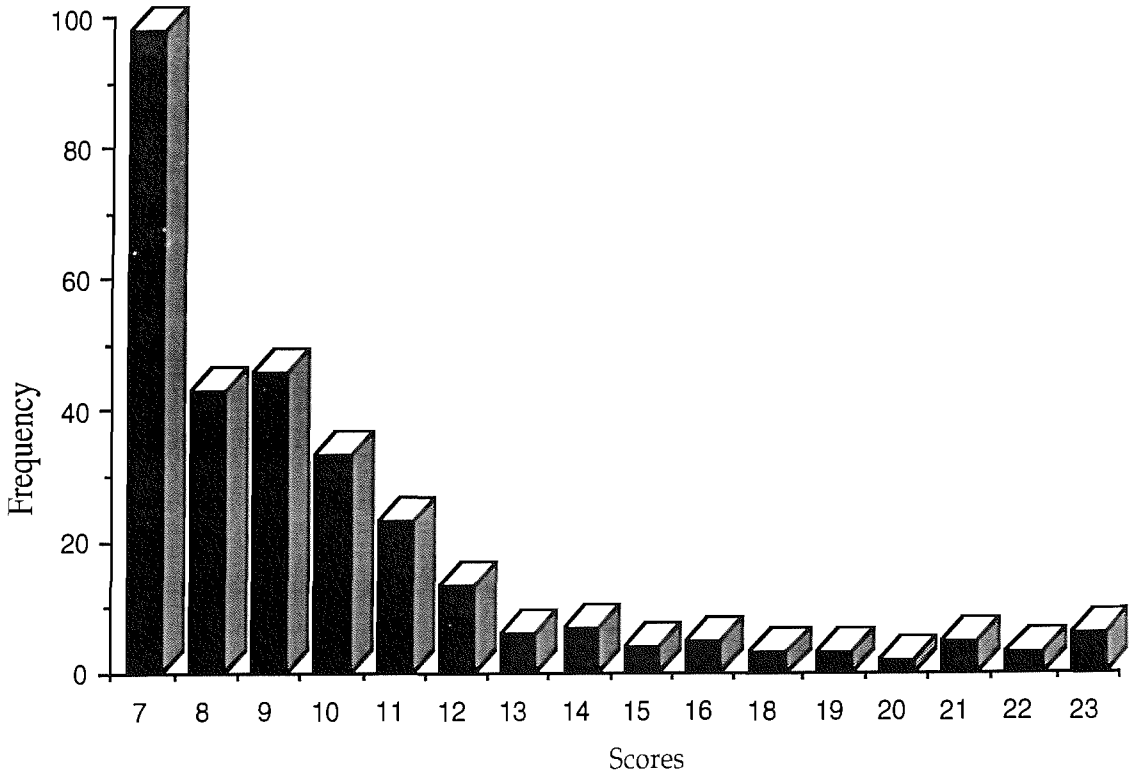


Figure 2: Bar Chart of Hyperactivity Scores

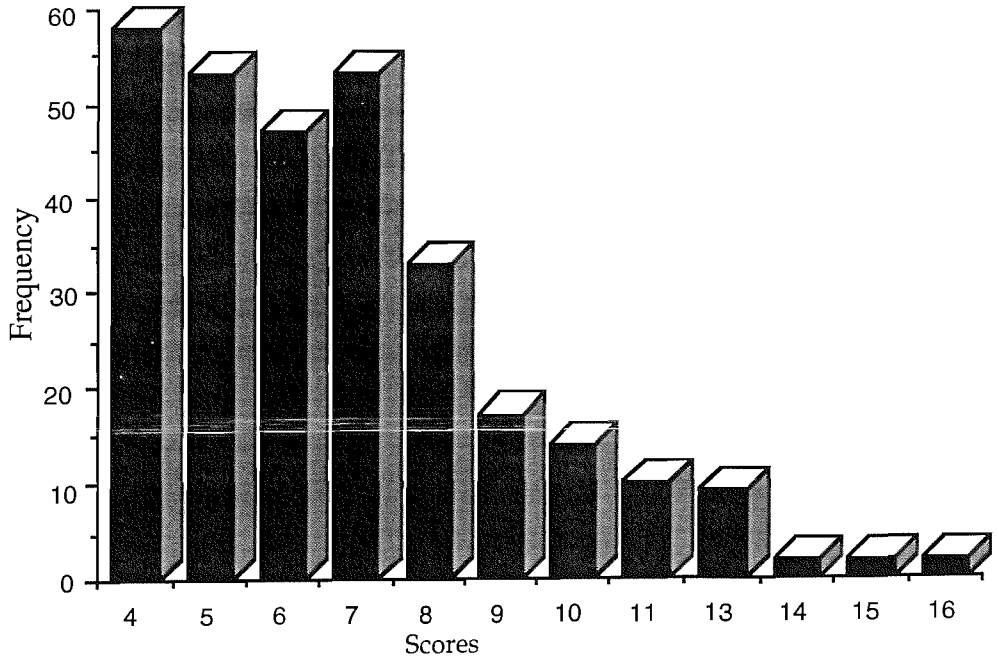


Figure 3: Bar Chart of Anxious-fearful Scores

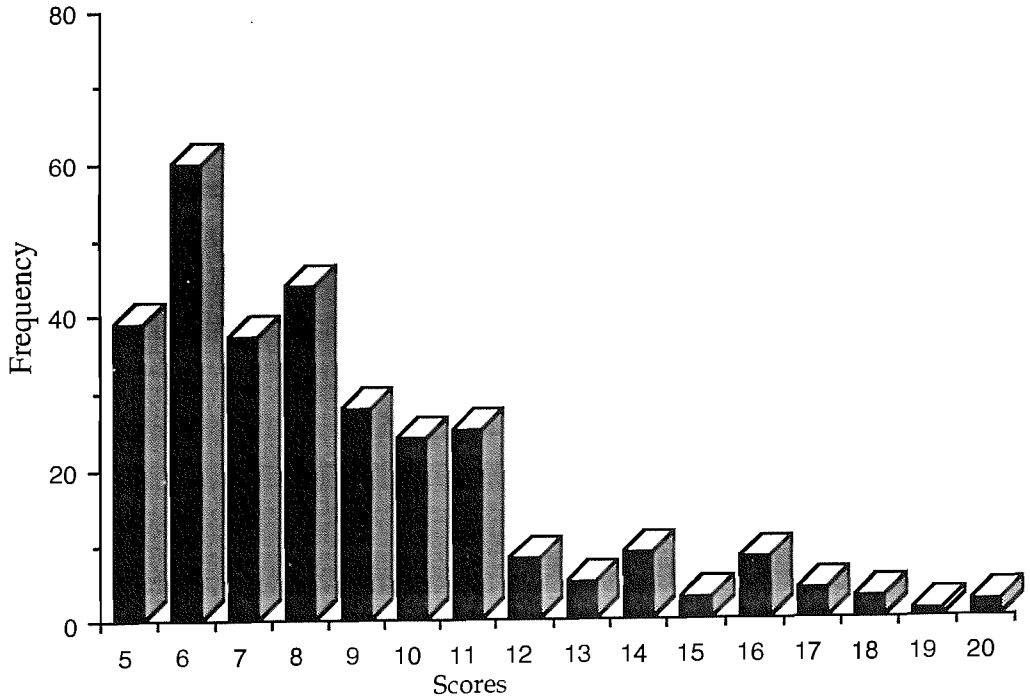


Figure 4: Bar Chart of Fidgeting Scores

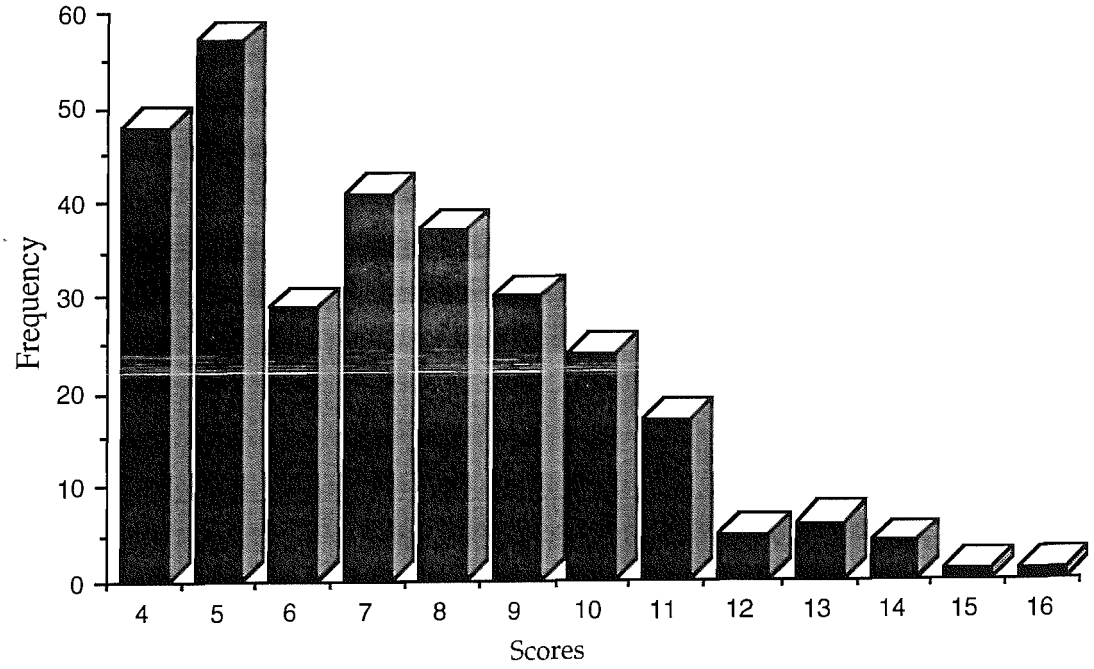


Figure 5: Bar Chart of Unsociability Scores

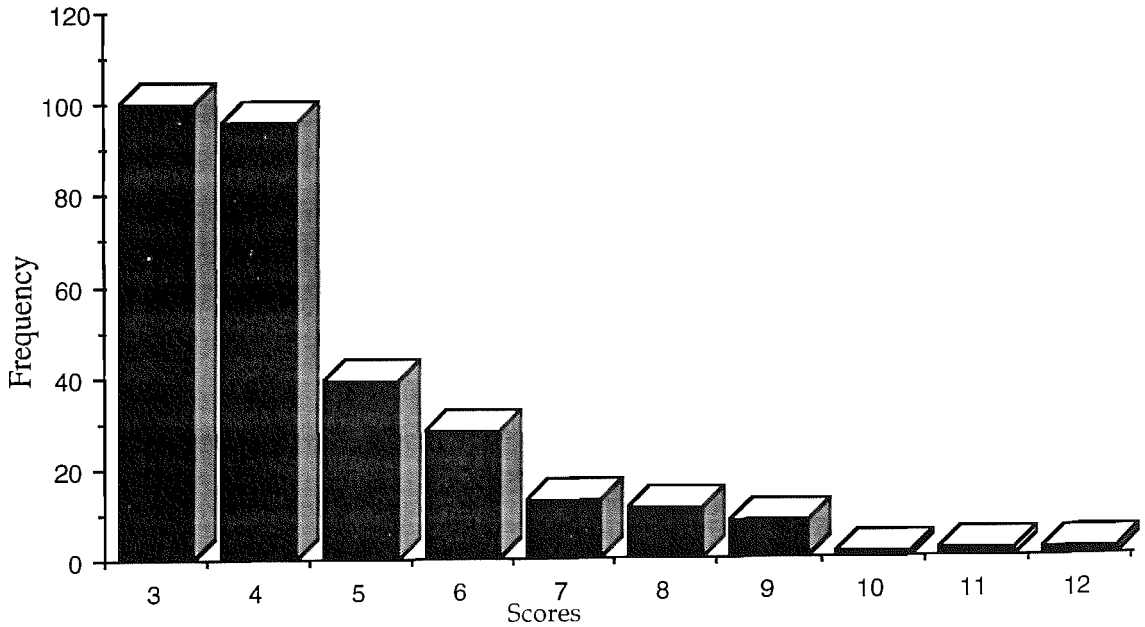
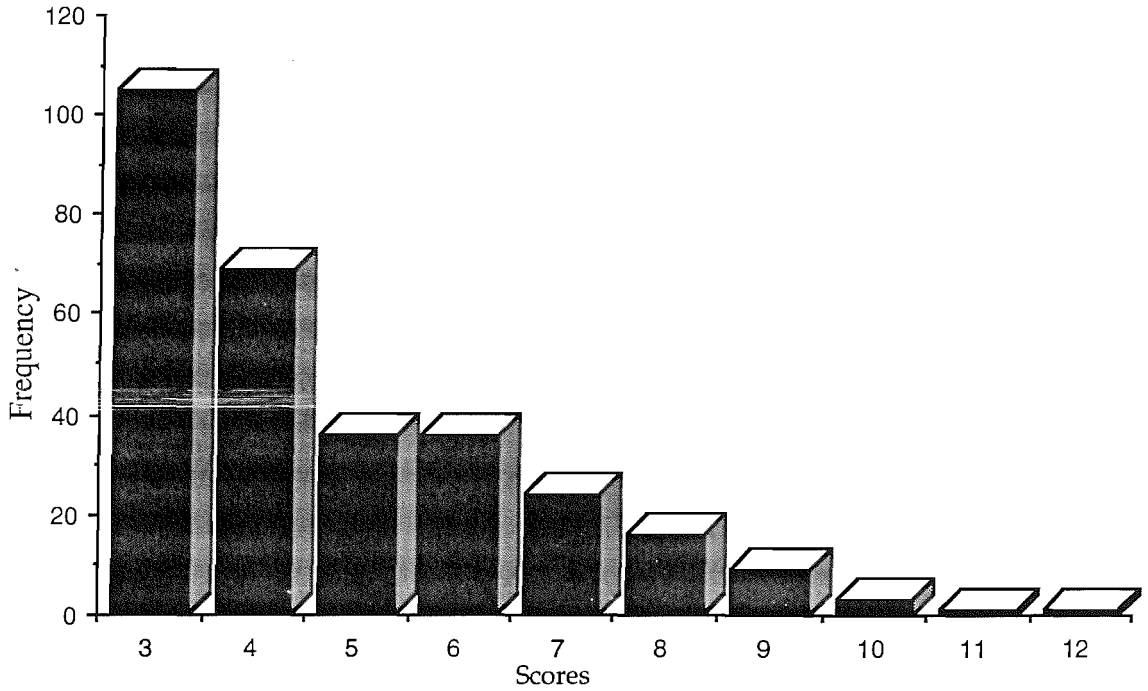


Figure 6: Bar Chart of Unhappy Scores



6.3.2.7. The Association Between Different Scale Scores.

Factor scores were calculated by adding the constituent item scores. These results indicated that all the six factors of the teacher version were significantly intercorrelated. The results also indicated relatively high correlations between conduct problems and unsociable, unhappy, and hyperactivity factors. But the higher correlation

Table 4: Intercorrelation Between The Different Scale Factors.

	1	2	3	4	5	6
1. Conduct	1.0	-	-	-	-	-
2. Anxious-fearful	0.46	1.00	-	-	-	-
3. Hyperactivity	0.50	0.35	1.00	-	-	-
4. Fidgeting	0.30	0.16*	0.55	1.00	-	-
5. Unhappy	0.50	0.29	0.38	0.28	1.00	-
6. Unsociable	0.52	0.33	0.40	0.24	0.38	1.00

*All Are Significant P< .0001 Except * P <.005*

was seen between hyperactivity and fidgeting while other factors were moderately intercorrelated except for the correlation between anxious-fearful and fidgeting factors which was relatively low.

6.3.2.8 Second Order Factor Analysis

In order to conduct a second order factor analysis the six factor scores obtained were submitted to a second PCA and the solution was rotated to orthogonal structure using varimax criterion with eigen values greater than 1. Results showed two factors which did not support a straight forward distinction between externalising and internalising problem type. Instead there was a distinction between symptoms of hyperactivity and other types of maladjustment including problems related to conduct and those related to emotional disturbance. In a further step to explore the possibility of a better solution, the extraction rule was changed to specify the solution of three factors. The results improved as a clear third factor spelling anxiety-fearfulness was identified permitting a clear distinction to appear between hyperactivity and conduct problems (see Table 5).

Table 5: The Results Of Second-Order Factor Analysis

	Factor	**Loading**
First factor	Conduct problems	.83
	Unsociable	.71
	Unhappy	.68
Second factor		
	Fidgeting	.92
	Hyperactivity	.75
Third factor		
	Fearful-anxious	.94

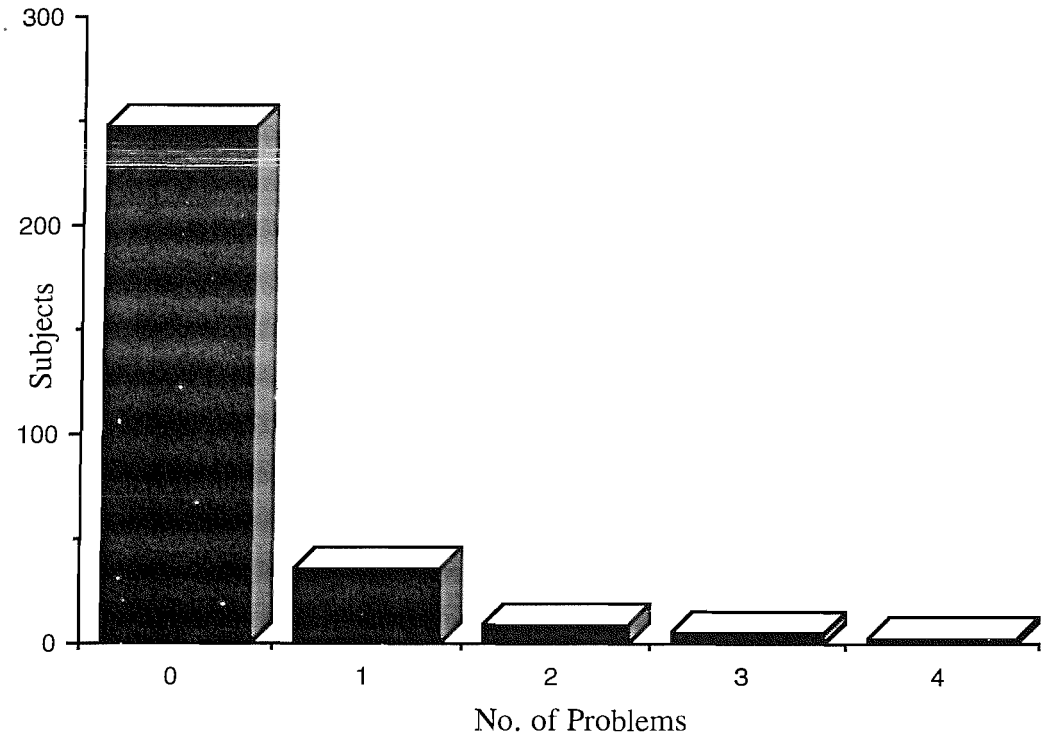
6.3 2.9. Total Problem Scores

In order to calculate the total problem score for each child, in a more sophisticated way than previously reported, we tried to examine the prevalence rates of emotional and behavioural problems among the sample by calculating the distribution of subjects who showed no problems, showed one, or more problems. This step would require a certain cut-off. To establish a cut off point for the distribution of each scale across the sample, the frequency of scores that were found to occupy the 95th percentile was computed. For example, the score closest to the 95th percentile for the conduct problems scale was 19

which served as the cut-off for this scale. After establishing the cut-off to be applied to all subjects for each scale, we tabulated the number of subjects who scored above the cut-off showing one or more problems.

Figure 7 below shows that there was a sound majority of our subjects with no problems at all (82.3%) while a sizeable portion had only one problem (12%).

Figure 7: Bar Chart of Total Problems Scores within the Sample



6.3.3. Discussion of the Teacher Questionnaire

Although the present study is not a cross-cultural one, comparison of factor structures will serve as a means to evaluate the extent to which our scale is measuring the same constructs as in previous studies. Consistency or congruence of factor structures will give us an idea about the linguistic and conceptual equivalence of our scale (Reid, 1995). In this section, the factor structures derived here was compared to other structures from previous studies using the Conners Scale. In particular, three studies were selected. First, Conners (1969) was chosen because it was the first study to use the scale and therefore represented a baseline for subsequent comparisons. Second, Werry, Sprague & Cohen, (1975) study was selected because its sample marked some departure from Conners' as it included both normal and deviant groups:. Third, Luk, Leung, and Lee (1988) study had an entire normative sample in addition to being a non-Western study providing some evidence for the cross-cultural validity of the scale. So the items loading and factors derived in these three

studies were compared in some detail (see Table 12).

6.3.3.2.1 Conners (1969)

This study administered the CTRS in a sample of 82 boys and 21 girls with behaviour disorders admitted for drug therapy. There was a good level of agreement when the findings of the present study are compared with those of the original Conners study (1969). In that, broad similarities were found with the original factor set even though many differences were evident in the item response pattern. The comparison between Conners' factors and ours is detailed in the following section and shown in table 3 , with Conners' original structure as criterion.

Conduct disorder, the first factor in the present study is similar to the first factor in the initial study conducted by Conner. While Conners' principal factor (conduct disorder) accounted for 39% of the total variance, ours retained 23% of the variance. Seven items loaded on our first factor, five of which also appeared in Conners' 11 items -first factor, thus showing a good concordance bearing in mind, as previously mentioned, that stealing and lying items are excluded from our questionnaire version. One of the remaining items which is truancy (attendance problem) loaded on Conners' third factor "anxious- fearful" while the other one 'uncomfortable with same sex' negatively loaded in Conners fifth factor. The second factor in the present study reflected an '*anxious-fearful*' dimension which was quite similar to Conners' third" anxious-fearful" factor. The third factor in the present study *fidgeting* is a three-item loading represented by two items (fidgeting, teases other children) in Conners' fourth 'hyperactivity' factor. The third item (*easily frustrated*) is loading in Conners' second factor 'Inattentive-passive'. Moreover, Conners' fourth 'hyperactivity' factor spelled out the same items as the fourth 'hyperactive' factor in the present study. Conners described his fifth factor "sociability" as being poorly defined consisting only of negative loadings reflecting co-operative and sociable child without any symptoms, Likewise the final factor in the present study reflects dimensions of unsociability.

6.3.3.2.2. Werry, Sprague & Cohen, 1975

In this study the CTRS was administered to a sample of 291 normal and 48 hyperactive school children (grades 1-6) from a midwestern university town in the US. Data from 16 hyperactive New Zealand children were added to the deviant group. Using the same criterion for defining a loading, the authors obtained an eight factor solution. These were: conduct disorder, hyperactive-inattentive, unsociability, tension-anxiety; shyness, lying-stealing, helpfulness, and absence from school. The comparison between Werry, Sprague & Cohen, (1975) factors and ours is shown in table 3.

Factor 1- (*Conduct disorder*): While the conduct disorder factor in the present study had

seven item loading accounting for 23% of the variance, theirs had 15 items accounting for 34.5 % of the variance (higher). Five items (easily gets angry, destructive, disturbs other children, quarrelsome, unco-operative) in our factor loaded on their first factor. One of the remaining two items of our factor (truancy) stood up as a factor by itself in Werry's study. While (lying, and stealing) items were not included in our factor analysis, they emerged as a separate factor in Werry's study. Factor 2 *(anxious-fearful)* : 2 out of 5 items (lacks leadership and doesn't feel comfortable with opposite sex) in this factor loaded on Werry's third five-items factor (unsociability) showing some sort of similarity. It is interesting to note that both studies reflected a deviant feature for this factor which was not the case in Conners' original factor structure. Factor 3 (*Fidgeting*):This three-items factor is closely linked to Werry's hyperactive-inattentive factor. Likewise the fourth factor in the present study *(hyperactive /inattentive)* is also represented in the second factor of Werry's study (hyperactive-inattentive). Factor 5 *(unhappy*:) consists of three items: has unpleasant face (sullen), stubborn which were represented in Werry's first factor and 'cries easily' which loaded in Werry's fourth factor. Obviously there is no counterpart for this factor in Werry's study. Factor 8 *(Unsociable)* is composed of three items: not liked by others, isolated, and day-dreams. This factor is entirely replicated in Werry's third factor under the same label. Both ours and Werry's 'unsociability' factor was much similar to Conners' fifth factor.

To conclude, there are some similarities between the present factor structure and Werry's study. Firstly, the sample size in Werry's study (291 subjects) was nearer to ours (300 subjects) the thing which might explain the similar number of factors (eight and nine) extracted. Secondly, the scoring system in both studies was similar with some departure from Conners' original one. Thirdly, in both studies teachers tended to perceive disturbing and excitable/impulsive behaviour as a sign of conduct problem than Hyperactivity, although this difference seems to be relative. Despite the fact that hyperactivity emerged as a discrete factor in our study, it shared with Werry's study an overlapping characteristic with other factors. As in Werry's structure, inattention in the present study has emerged as one element of hyperactivity whereas it is a separate factor in Conners' original study. However, a major discrepancy between the two studies is the fact that some items of hyperactivity features formed a separate factor (fidgeting) in our study while these items were included in Werry's big factor.

6.3.3.2.3. Luk, Leung, and Lee (1988).

Luk, Leung, and Lee (1988) applied the CTRS to a sample of normal school children in Hong Kong and reported four factors: conduct problems and hyperactivity, anxiety, inattention, and problems in social relations. These four factors will be compared to the factor structure in the present study.

Conduct problems: while our first factor accounted for 23% of the variance their

combined factor of conduct problem and hyperactivity accounted for higher percentage of the variance (58.8%). It included five of our seven-item conduct problems factor. The second factor in Luk's study (anxiety) was almost the same as our second (anxious-fearful) factor. Their third factor (inattention) was almost a replication of our fourth factor (Hyperactive-inattentive). The fourth factor in their study (problems in social relations) was quite similar to our sixth factor which indicated symptoms of unpopularity and isolation. The remaining factor 'unhappy' was entirely unrepresented in Luk's factor structure.

Table 6: A Comparison Of Factor Structure Of The Present Study And Other Different Three Studies

Item	Conner (1969)	Present Study	Werry (1976)	Luk (1988)
Has unpleasant face	C	UH	C	A-F
Disturb other children	C-H	C	C	C-H
Quarrelsome	C	C	C	C-H
Moods	C	/	C	C-H
Destructive	C	C	C	C-H
Steals	C	St-L	/	
lies	C	*	St-L	C-H
Doesn't like playing	C	A-F	C	/
Teases other children	C-H	F	C	C-H
Submissive	C	/	SH	/
Unable to defend hims	C	*	C	C-H
Stiff-minded (obstinate)	C	UH	C	C-H
Impudent	C	/	C	C-H
Unco-operative	C	C	C	C-H
Inattentive	I	H	I	I
Fails to complete things	I	H	I	I
Easily influenced or led	I	/	I	/
Has fantasies	I	/	I	I
Lacks leadership	I	A-F	A-F	/
Sensitive to criticism	A-F	/	SR	C-H
Too serious/sad	A-F	/	SR	A-F
Easily frustrated/temper	A-F	F	C-H	C-H

Table 6 Cont.

Table 6 Cont.

Shy	A-F	/	SH	A-F
Fearful	A-F	A-F	I	A-F
Uneasy to please	A-H	/	HF	/
Has truancy	A-F	C	-T	/
Fidgeting	H	F	I	C-H
Makes unusual noises	H	/	I	C-H
Needs more attention	H	A-F	C	C-H
Restless	H	H	I	C-H
Isolated	-SR	SR	A-F	SR
Not liked by others	-SR	SR	A-F	SR
Uncom with opposite sex	-SR	A-F	A-F	SR
Cries easily	/	UH	SR	A-F

NOTE

C = Conduct problem I = Inattentive-passive A-f = Anxious-fearful
H = Hyperactive SR = Social Relation (Unsociable) C-H combined
actor (Hyperactivity + Conduct) UH = Unhappy
St-L = Stealing -Lying HF = Helpfulness T = Truancy
SH = Shy / = Item not loaded or loaded on two- item factor
* = Items excluded according to criteria of item selection

It seems clear from the preceding discussion that the present study has achieved a satisfactory level of agreement over the structure of behaviour problems with other similar studies. A possible explanation of this finding is that Sudanese teachers' perception of behaviour problems might be influenced by their Western-like training. With regard to expression of some differences between these studies, almost all investigators who have conducted studies using the CTRS appear to show some discrepancies (Reid, 1995). Various possible explanations for this phenomenon have been suggested. Some investigators (Trites et al, 1982; Thorely, 1983) argue that differences in both the size and nature of the samples used in various studies are probably responsible for these discrepancies. In particular, Conners' sample (1969), included a group of children referred for psychopharmacological treatment. Another shortcoming was pointed out by Arnold et al, (1981) when they remarked that the available data from all studies tended to pool a spectrum of ages even though significant age differences in the structure of problems have been demonstrated. While the current study enjoys the advantage of having normal relatively large sample, it is obviously disadvantaged by its six to ten age range.

Other researchers suggested that the cause of these variations could lie in either genuine cultural differences in children' behaviour, or more probably differences in teachers' perceptions and rating behaviour (Luk et al, 1988; Werry et al, 1975). Moreover, the fact that our teachers were not familiar with this scale might also add to our understanding of those differences. Teachers' unfamiliarity with Rating Scales may produce high scores. It has been shown that a first attempt to use the CTRS often gives a higher score (Werry & Sprague, 1974). The question remains open as to whether behaviour problems screened in this way do in fact represent the same level of problem in other countries. The answer to this question requires rigorous cross-cultural studies using more precise or direct measures of behaviour. Nevertheless, our data provide further evidence that CTRS may be useful in identifying behaviour problems among Sudanese children.

6.4. The Development of the Parent's Questionnaire

6.4.1 Method

6.4.1.1 Participants

300 children were selected for this study in the way described in chapter five. Test re-test reliability data was computed on the basis of a randomly selected sub-sample (N=16) of the total parent sample.

6.4.1.2. The Original Instrument

The Conners parent questionnaire originally consisted of 93 items. For the purposes of the present study some items were omitted while 47 new items were added. The final scale was made up of 120-items (see Appendix 2-A). These changes were made so that the questionnaire might be sensitive to the Sudanese culture. For example, two new items were added to the eating problems variable: "running around while eating" and "eats mud and earth". These two items reflect some features of the physical environment that might influence modes of children's adjustment. Similarly, regarding the fears variables items like : "afraid of darkness", "afraid of strangers", "afraid when told about thieves stories", reflect common fears for children as observed by some Sudanese parents. For the immaturity sub-scale we added a new item of selfishness because of its prima facie relationship with the concept of individuality which is not valued in the Sudanese culture. The item "feels hurt by other people" was also added to items of trouble with feelings because the Sudanese people are very socially conscious. For the sex variable, attitudes of the Sudanese people were expected to show some difference from those prevalent in the US., so two items were deleted and replaced by three other items. These were: " likes to go naked", " inquires about sex differences", and "doesn't like mixing with the opposite sex". Also the item "modest

about his body" was changed to " does not care if he/she is a boy or a girl". For the lying variable, a new item was added "does not like to tell about other children's mistakes". Items associated with troubles with the police were omitted. Instead, two items about being cruel to animals and plants were introduced. A new domain of five items about hygiene was added. Two other variables peculiar to the Sudanese culture were considered relevant because of the special significance they bear to ideas of adjustment in that context. These were religious awareness, and relationship with grandparents. Finally, in the additional problems section, two more item were added:" throws stones at passers-by or neighbours", and "does not care about the feelings of others". The process of translation was the same as for the teachers questionnaire.

6.4.1.3. The procedure

Although the questionnaire was in a written form, the questionnaire was presented orally and the administrator marked the options indicated by the parent. This is to overcome any hazards stemming from parents' unfamiliarity with questionnaires or the way it should be completed.

6.4.2. Results

6.4.2.1 Initial item analysis

The same criteria for item inclusion were adopted as in the teachers questionnaire. First, items were excluded on the grounds of low multiple Rs. These were : "is difficult to please by the type of food:, "will run around between mouthful at meals", "can not keep his books and things in order", "cries often and easily", "mood changes quickly and drastically" . Second, items were deleted because of duplication. These were "school is far away from home", "will not eat enough", "has lisping", "items of heath complaints - "headaches", "stomach aches", "vomiting", "diarrhoea", and "allergy", "can not stand much excitement", "chews on clothes or papers", "picks at things such as hair and old clothes", "answers back to grown ups", "does not care if he/ she is a boy or a girl", "cruel to animals and plants", "verbally aggressive", "throws himself around", "does not like to tell about other children's mistakes", "undressed", "refuses to wash himself", "easily distracted", "poorly aware of surroundings or time of day", "always climbing", "easily frustrated".

6.4. 2.2. Distribution of Problems across the Original items

Items were also excluded because they were too prevalent to be considered as problems or too rare to be considered as common problems. Table 7 reports the prevalence of each behaviour problems as measured by the parent scale.

Table 7: Prevalence Of Each Behaviour Problems As Measured By Parent Scale. 22 Items Were Excluded For Unusual Distribution Of Responses.

Item	pretty much	very much
eats carelessly	09.3	09.7
eats mud and earth	05.3	04.3
anxious/keep moving while sleeping	10.3	13.7
has nightmares	07.0	03.0
wakes at night	07.7	03.3
can not easily fall asleep	9.3	04.0
fear from strangers	10..0	07.0
fear from loneliness	21.3	07.0
can not bear mothers' absence	16.7	07.3
fear from illness & death	5.7	06.7
fear from thieves stories	17.0	12.0
getting rigid and stiff	11.3	15.7
has tics	05.3	04.3
stutter	06.3	03.7
bedwets	05.0	05.6
has bowel problems	02.7	03.3
health complaint/aches	07,3	03.0
sucks thumbs	06.0	06.7
bites nails	06.3	03.7
always needs help	15.7	09.3
always clings to parents	22.7	18.7
has baby talk	11.3	15.0
selfish	08.0	07.7
unhappy	07.3	02.7
feels hurt by others	07.0	05.3
bullying	06.3	06.3
boasting	10.0	08.0
shy	08.3	06.3
feels unliked by others	06.3	02.3
easily get embarrassed	16.3	14.3
has no friends	06.3	12.3

Table 7 Cont.

Table 7 Cont.

has no concern for others	13.3	08.7
is mean	05.7	05.0
quarrel with brothers/sisters	15.3	14.0
disturbs other children	07.0	04.3
domineering	17.0	11.3
aggressive with children	14.0	11,3
teases other children	14.0	11.3
impulsive	21.3	16.3
inattentive	15.3	13.3
has temper outburst	10.7	09.7
excitable	05.0	06.7
destroys and throws things	08.0	02.6
moody	08.0	05.6
likes to go naked	04.7	03.0
asks about sex differences	07.3	03.3
doesn't like mixing/opposite sex	13.7	09.3
pays no attention to learning	08.0	08.3
doesn't like going to school	06.3	0.63
truant	04.7	03.0
doesn't obey school rules	04.3	04.0
denies his mistakes	13.0	06.7
blames others for own mistakes	10.0	05.0
tells things did not happen	09.3	07.7
steals from parents	04.3	03,7
sets goals too high to reach	20.7	11.7
plays with mud and earth	09.3	07.0
untidy	04.3	03.3
doesn't like visiting grandparents	11.3	17.3
does not like "huja"	16.7	14.3
he/she is an early riser	16.3	16.0
tears run easily	14.3	10.0
has mannerism	09.3	05.0
does not care about others	05.3	04.3
Has poor muscle co-ordination	05.3	06.7

Table 7 Cont.

Table 7 Cont.

Is difficult to understand	04.7	06.3
Cries easily	08.6	09.8
Fear from new situation	10.3	07.8
Overeats	11.3	07.9
Doesn't eat enough	12.2	06.8
Items > 35% (3/4)*		
can not be left alone	20.2	18.0
afraid of darkness	15.0	20.5
doesn't act his/her age	21.0	18.6
everything must be just so	15.3	19.7
does not remain clean	15.3	40.0
things must be done the same way everytime	25.3	18.3
does not like to learn some of the holy Qur'an,	20.3	19.5
does not like doing his prayer	27.0	13.0
does not care about religious stories	19.3	16.0
does not like sitting with grandparents	16.3	33.0
constantly fidgeting.	18.0	18.0
Items < 7% (3/4)*		
shakes,	04.7	01.6
soiling himself	02.7	03.3
hold back bowel movement	04.0	01.7
gets angry with himself	02.7	04.3
feels cheated	03.7	02.6
is afraid to go to school	04.7	02.2
does not like his/ her teacher	03.3	03.3
is afraid of class mates	03.3	03.0
stealing from school	02.3	03.6
stealing from stores and other places	04.0	01.6
throws stones or interrupts passers-by or neighbours	03.0	03.3

6.4. 2.3. Test-retest Reliability

Correlation coefficient was computed from the test and re-test scores. Table 8 shows the results of this correlation. Almost all items obtained satisfactory correlation coefficient. Only six items had very low correlation coefficient. These were: "does not eat enough", "overeats", "fear from new situations", "has poor muscle co-ordination", "is difficult to understand", and "cries easily". These six items were excluded from the questionnaire. Accordingly, 64 items remained which composed the final version of the scale. In general, the test-retest item reliabilities of the parent questionnaire were satisfactory ranging from .54 to 100.

Table 8: Shows The Test -retest Correlation

Item	**R**
Boasting	1.0
Fear from thieves stories	.97
Always clings to parents.	.97
Sucks thumbs	.97
Tells things that did not happen	.97
Wakes at night	.96
Always needs help	.96
Doesn't obey school rules	.96
Sets goals too high to reach	.96
Has no concern for others	.96
Has baby talks	.95
Likes to go naked	.95
Truant	.94
Domineering	.93
Plays with mud & earth	.93
Getting rigid and stiff	.93
Doesn't like "Huja"	.91
Selfish	.91
Untidy	.90
Destroys and throws things	.90
Bedwets	.90
Eats carelessly	.89

Table 8 cont

Table 8 cont.

Has nightmares	.89
Fears strangers	.89
Bites nails	.89
Has no friends	.89
Asks about sex differences	.88
Has mannerism	.87
Moody	.87
Is mean	.87
Impulsive	.86
Shy	.85
Excitable	.85
He/she is an early riser	.84
Stutters	.84
Has bowel problems	.84
Doesn't like mixing/opposite sex	.83
Steals from parents	.82
Fear from illness and death	.81
Has tics	.81
Feels hurt by others	.81
Inattentive	.81
Has temper outburst	.81
Teases other children	.80
Disturbs other children	.80
Tears run easily	.80
Pays no attention to learning	.78
Unhappy	.76
Bullying	.76
Doesn't like going to school	.74
Denies own mistakes	.73
Quarrel with brothers/sisters	.72
Doesn't like visiting grandparent	.72
Easily gets embarrassed	.69
Aggressive with other children	.63
Can not bear mother's absence	.60

Table 8 cont.

Table 8 cont.

Blames others for own faults.	.60
Fear from loneliness	.58
Doesn't care about others	.56
Feels unliked by others	.56
Can not easily fall asleep	.55
Anxious/ moves while sleeping	.55
Eats mud and earth	.54
Has health complaints/aches	.46
Has poor muscle co-ordination	.24*
Is difficult to understand	.23*
Cries easily	.22*
Fear from new situation	-.20*
Overeats	.17*
Doesn't eat enough	-.17*

N.B. Asterix marks excluded items.

6.4. 2.4. Principal Components Analysis

Prior to factor analysis a number of items were also discarded for being considered culturally unreliable. These were the sex related questions which it was felt would be embarrassing for Sudanese mother to answer and so would be unreliable. So the final version of our adapted questionnaire which consisted of 58 items was factor analysed according to the criteria used for the teacher questionnaire. This gave a 13 factor solution (see Table 9). Because of the items loading, these factors were called: 1-Developmental problems; 2-School problems; 3- Emotional immaturity; 4- Unsociable-self-centred; 5-Unsociable-aggressive; 6- Emotional-vulnerable; 7- Sleep problems; 8- Unsociable-lying; 9- Muscle tension 10- Oral fixation; 11- Anxious-morbid; 12- Grandparents interaction; 13-Lonely. Table 9 shows the variance accounted for by the thirteen factors and the items with loading exceeding .40 on each of these factors.

Table 9: Shows Items Loadings, Variance, And Alpha Coefficient For The Thirteen Factors

Farcors	Loading
Factor I: Developmental problems (18.8 % of the variance) α= **.83**	
Speech problem	.67
Complaint without good reason	.53
Excitable (impulsive)	.50
Plays with mud and earth	.48
Destroys and throws things	.47
Bedwets	.46
Stealing from parents	.45
Untidy	.44
Unhappy	.44
Feels hurt by others	.44
Factor II: School problems (5.3 % variance) α= **.77**	
Pays no attention to learning	.79
Does not like obeying school rules	.71
Has truancy.	.71
Does not like going to school	.65
Factor III: Emotionally immature (4.1 % of variance) α= **.72**	
Temper outburst	.65
Needs help in doing things should do alone	.60
Feelings easily hurt	.45
Has baby talks	.42
Destroys and throws things	.40*
Always clings to parents	.37*
Factor IV: Unsociable-self-centred (3.4% of variance) α= **.72**	
Boasting	.70
Bullying	.63
Moody	.47
Selfish	.45
Has baby talks	.42
Factor V: Unsociable-aggressive (2.7% variance) α= **.740**	

Table 9 cont.

Table 9 cont.

Domineering	.76
Aggressive with other children	.72
Teasing other children	.59
Factor VI: Emotional vulnerable (2.5 0% of variance) α= **.530**	
Unhappy	.64
Afraid of stories about thieves	.62
Feels hurt by others	.56
Easily get embarrassed	.52
Factor VII : Sleep problems (2.3% of variance) α= **.72**	
Anxious. (keeps moving while sleeping)	.64
Wakes at night	.56
Eats mud and earth	.55
Has nightmares	.42
Can not easily fall asleep	.37
Factor VIII: Unsociable-Lying (2.3% variance.) α= **.640**	
Blaming others for his mistakes	.73
Denies mistakes	.69
Tells things that did not happen	. 51
Plays with mud and earth	.40
Factor IX Muscle tension (2.2% of variance) α= **.38**	
Has tics	.61
Gets rigid and stiff	.60
Easily get embarrassed	.50
Factor X oral fixation(2.2% of variance) α= **.61**	
Bites nails	.68
Sucks thumbs and fingers	.67
Unhappy	.40*
Factor XI Anxious-morbid (2.1% of variance) α= **.39**	
Obsessed by the idea of illness and death	.57
Has no concern for others	.57
Always cling to parents	.45
Factor XII Grandparents interaction (2.0 % of variance) α= **.43**	
Like visiting grandparents	.70
Like "Huja"	.69

Table 9 cont.

Table 9 cont.

Factor XIII Lonely (1.9 % of variance) α= **.31**	
Has no friends	.65
Can not bear absence of mothers	.40

6.4. 2.5. Internal Consistency

To determine the internal reliability of each factor, Cronbach's alpha was computed (see Table 9). Six factors (developmental problems, school problems, emotionally immature, unsociable-self-centred, unsociable-aggressive, and sleep problems) attained a good level of internal consistency (above .70) with a mean alpha coefficient of .75, while three factors (emotional vulnerable, unsociable-lying, oral fixation) showed a fairly acceptable level of internal reliability (above .50). The remaining four factors: grandparent interaction, anxious-morbid, muscle tension and lonely had levels alpha coefficient below .50 which seemed to reflect poor internal consistency and therefore will not be included in further analysis.

6.4. 2.6. The Distribution of Problems within the Population

Scale scores were calculated for the remaining 9 factors. This was done by adding the raw score for each item loading on that factors. Figures below (8-16) show bar chart of each problem based on the distribution of scores within the sample of the 300 children.

Figure 8: Bar Chart of Aggressiveness Scores

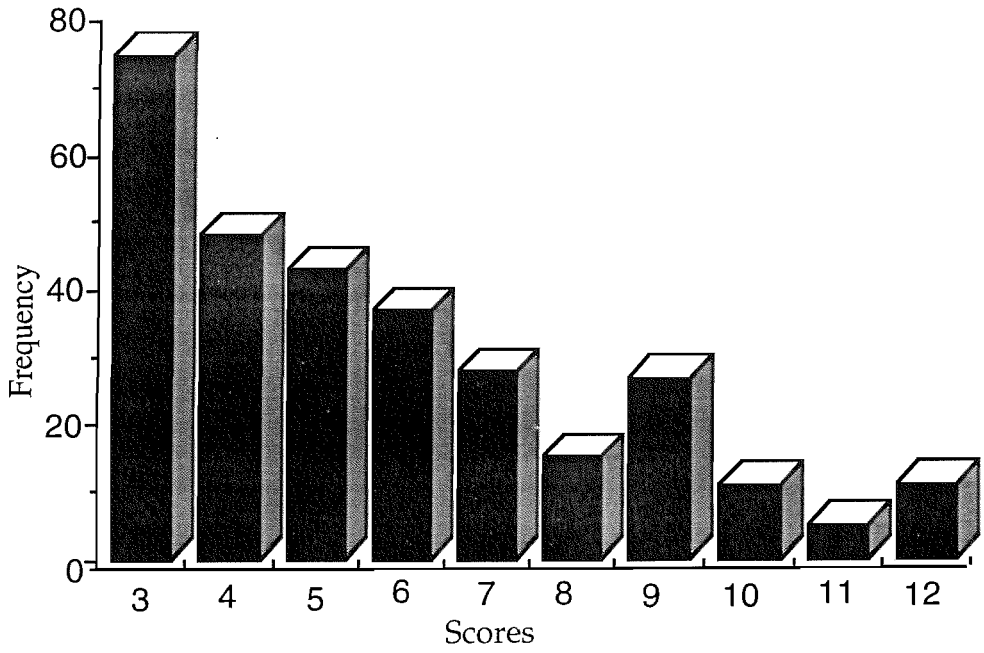


Figure 9: Bar Chart of Developmental problems Scores

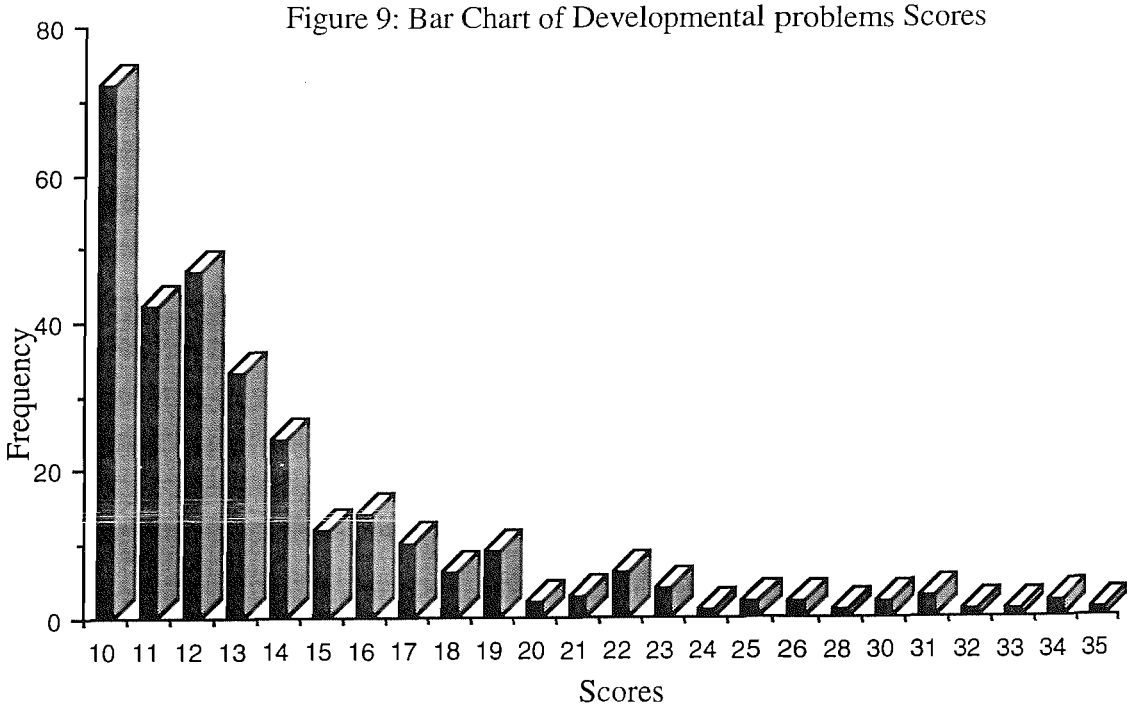


Figure 10: Bar Chart of Emotionally Immature Problems Scores

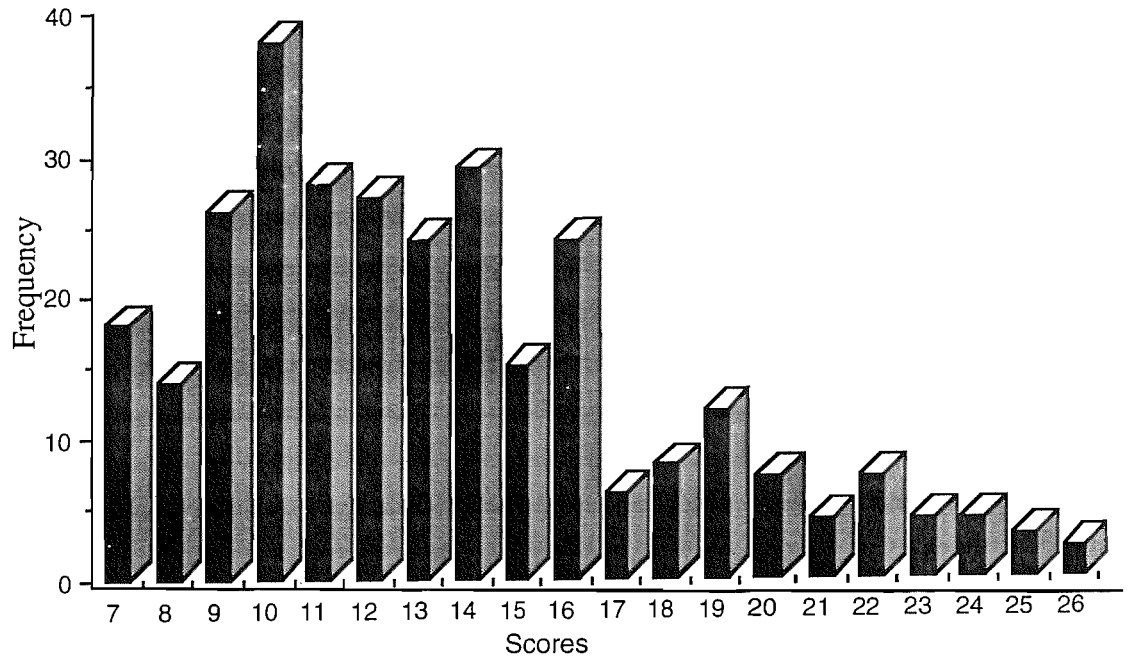


Figure 11: Bar Chart of Emotionally Vulnerable Problem Scores

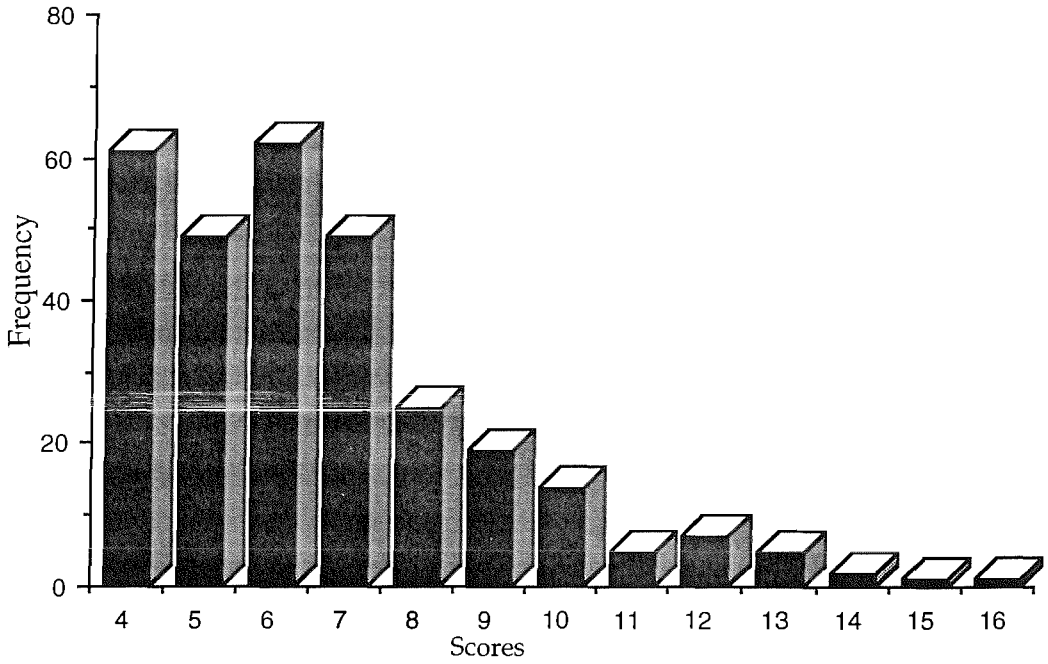


Figure 12: Bar Chart of School Problems Scores

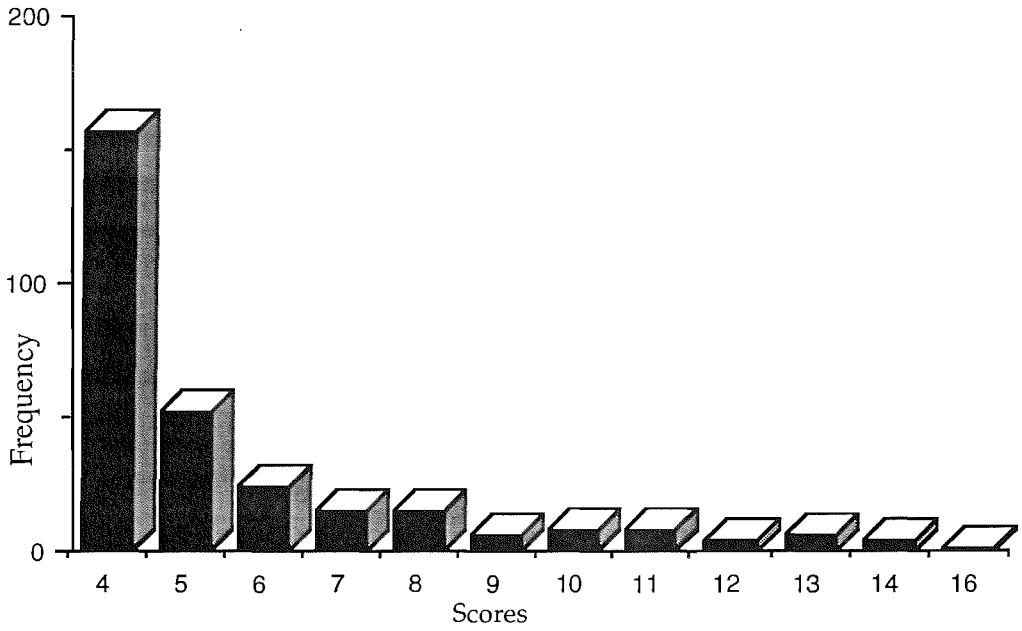


Figure 13: Bar Chart of Sleep Problems Scores

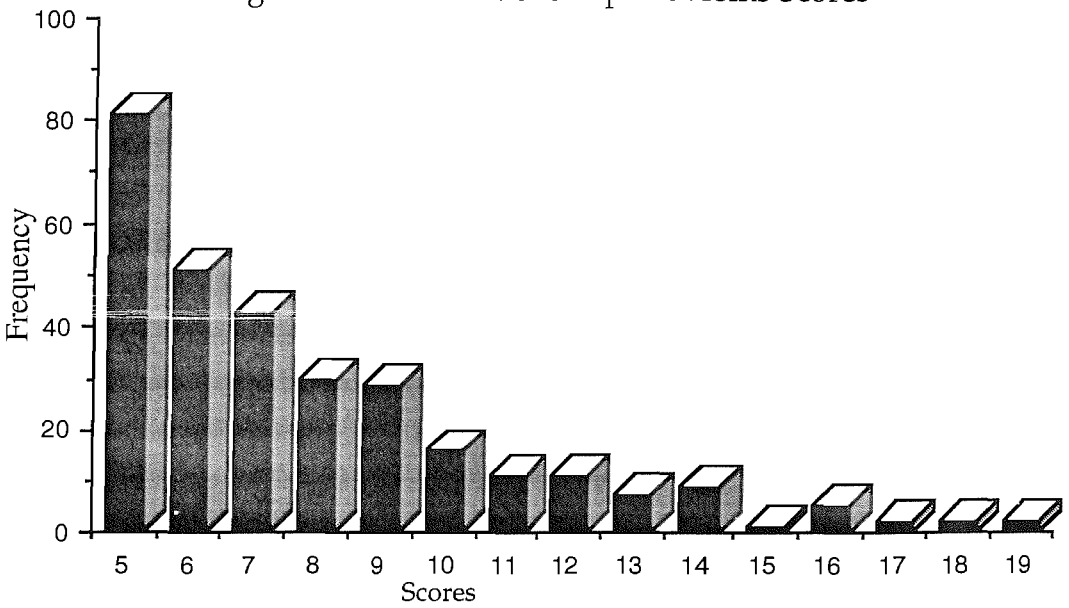


Figure 14: Bar Chart of Sucking Problems Scores

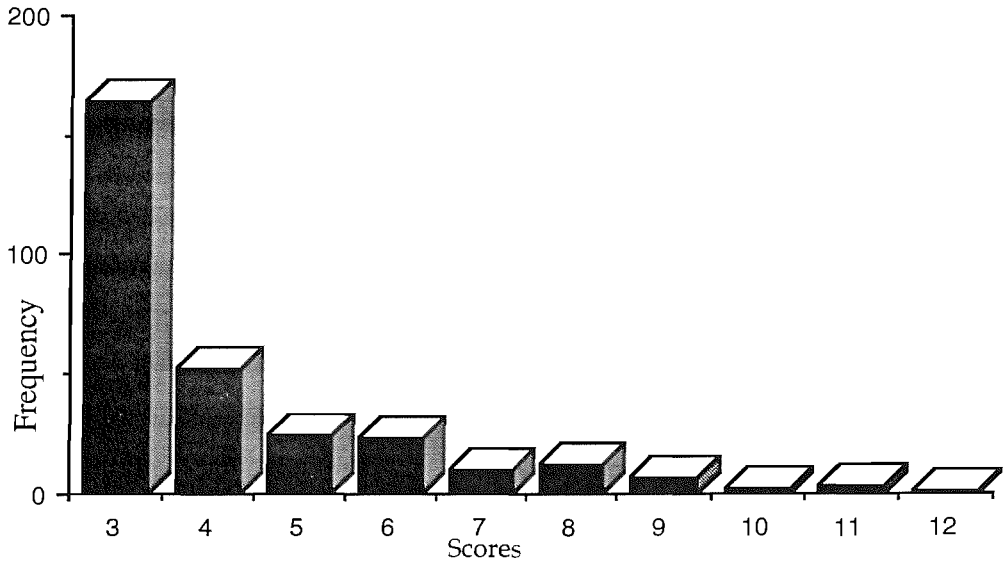


Figure 15: Bar Chart of Antisocial-selfish Scores

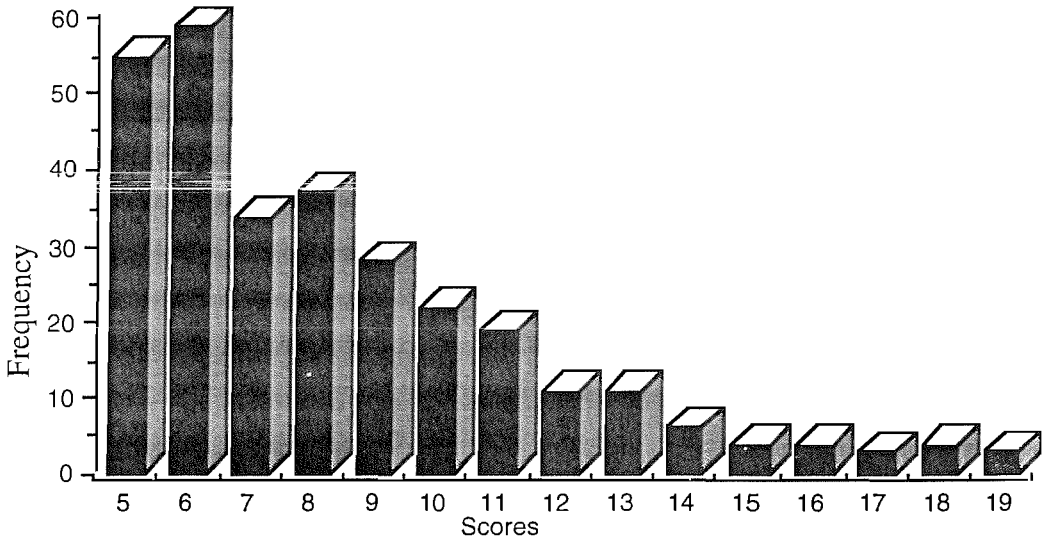
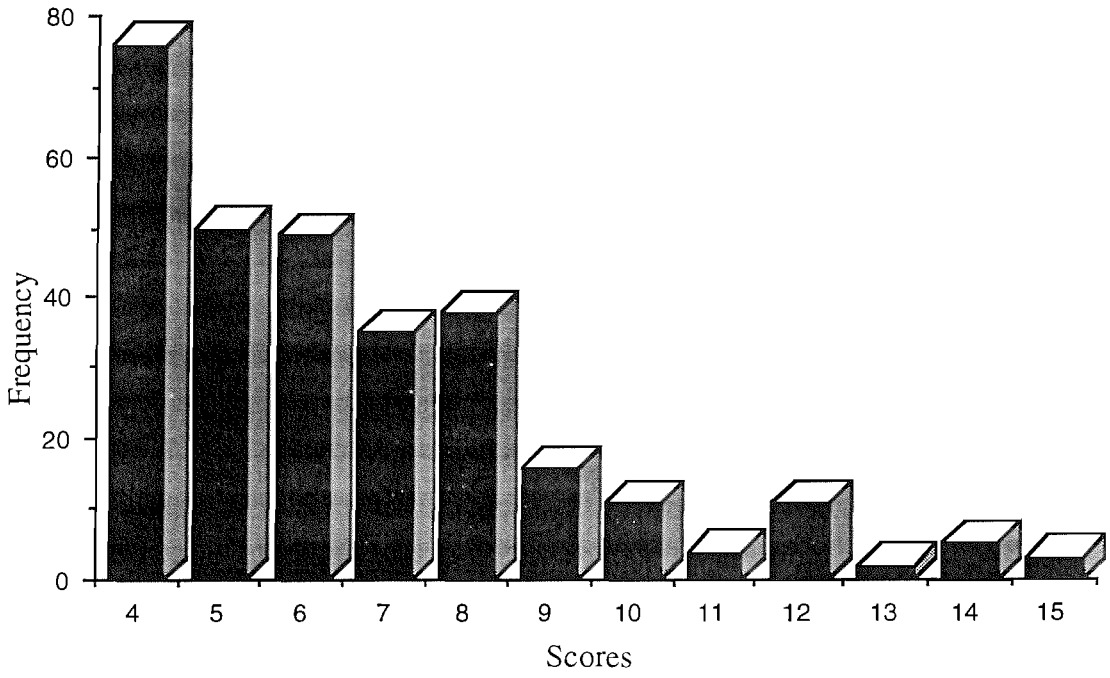


Figure 16: Bar Chart of Unsociable-lying Scores



6.4. 2.7. The association between different scale scores

Table 10 shows the Pearson correaltions between the different factor scores. These correlations indicate that all the nine factors derived from the parents' ratings were significantly intercorrelated. The higher correlation observed was

Table 10: The Intercorrelation Of The Parent Scale Factors

	1	2	3	4	5	6	7	8	9
1 .Development	1.0	-	-	-	-	-	-	-	-
2. Emo (immaturity).	0.47	1.0	-	-	-	-	-	-	-
3. Emo (vulnerability).	0.63	0.51	1.0	-	-	-	-	-	-
4. School	0.53	0.31	0.36	1.0	-	-	-	-	-
5. Sleep	0.57	0.43	0.48	0.46	1.0	-	-	-	-
6. Oral	0.63	0.38	0.51	0.37	0.43	1.0	-	-	-
7. Unsocial (selfish).	0.54	0.65	0.46	0.35	0.36	0.38	1.0	-	-
8. Unsocial (aggressive)	0.37	0.46	0.26	0.23	0.19*	0.31	0.50	1.0	-
9. Unsocial (lying)	0.55	0.39	0.29	0.36	0.37	0.30	0.43	0.27	1.0

All are significant, $p < .0001$ except * $p < .001$

between factor (developmental problems) and emotional vulnerable, and oral factors. While most factors appeared to have moderate correlations, only the unsociable-aggressive factor had low correaltion with sleep problems, school problems, and emotional vulnerable factors.

6.4.2.8. Second-order Factor Analysis

In order to examine the broad-band structure of parent's ratings, second-order factor analysis was computed in the same way as for the teachers questionnaire (Table 10). The nine factors were differentiated in two major groups. The first reflected broad developmental and emotional problems whereas the second group defined general anti-social, aggressive, and immature behaviour. With the view of seeking a better solution, the extraction rule was changed from eigen value greater than 1 to three factors. With slight improvement the new extraction yielded a third factor reflecting school problems and unsociable-lying behaviour besides the developmental and emotional problems, and the antisocial factors (Table 11).

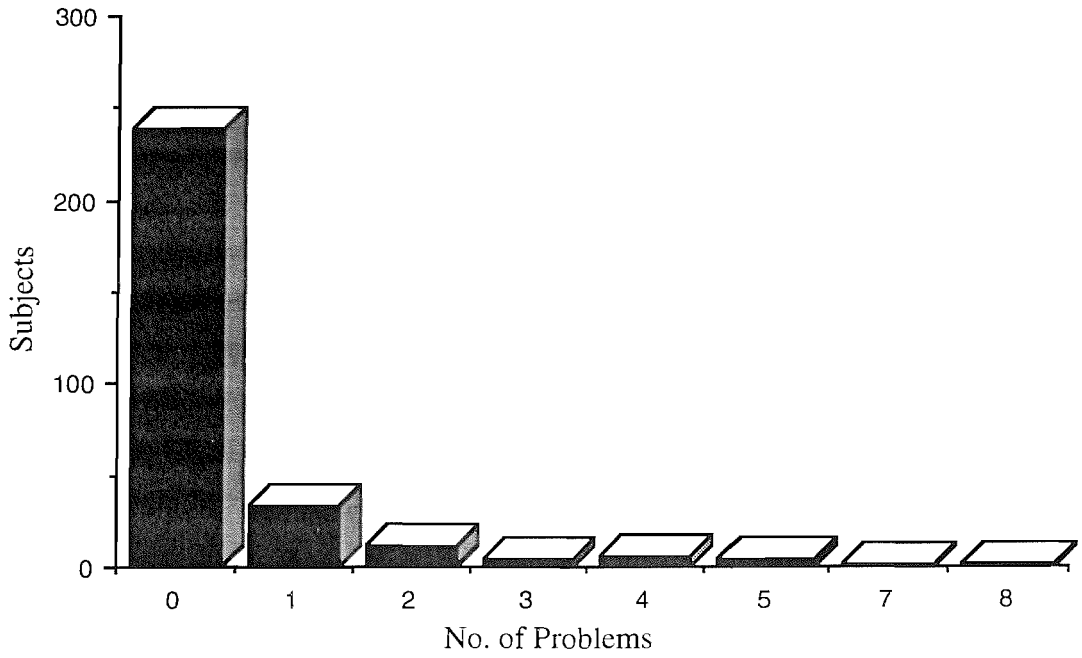
Table 11: Second-Order Factor Analysis

Factor		Loading
Factor 1		
	Developmental problems	0.79
	Sleep problems	0.77
	Oral fixation	0.76
	Emotional vulnerable	0.64
Factor 2		
	Unsociable-aggressive	0.81
	Unsociable-self-centred	0.75
	Emotionally immature	0.71
Factor 3		
	Unsociable-lying	0.81
	School problems	0.68

6.4.2.9. Total Problems

The number of problems each children had were calculated in the same way as described for teacher's questionnaire. Figure one shows that the majority of our subjects had no problems at all (79.7%) or had only one problem (11%) while subjects who had deviant scores (2 or more) constituted (9.3%) of the total sample. It might also be noted that the higher frequency of problems was, the less subjects distributed.

Figure 17: Bar Chart of Total Problems Scores among the Sample



6.4. 3. Correlation between Parents' and Teachers' Ratings

Next the relationship between parents and teachers ratings were explored (table 12).

Table 12: The Correlation Between The Factors Derived From Parents' And Teachers' Ratings.

Teacher	Conduct	Fidget	Anxious	Hyper	Unhappy	Unsociable	T-total
Parent							
Development	0.43	0.21	0.20	0.24	0.21	0.28	0.37
Emo(immaturity)	0.26	0.16	0.11	0.19	0.14	0.14	0.24
Emo(vulnerability).	0.27	0.09 ns	0.25	0.22	0.14	0.14	0.28
School	0.29	0.17	0.25	0.28	0.23	0.30	0.35
Sleep	0.28	0.15	0.19	0.25	0.15	0.23	0.31
Oral problems	0.30	0.16	0.18	0.21	0.12	0.21	0.30
Unsocial(lying)	0.27	0.14	0.12	0.17	0.10 n.s	0.15	0.24
Unsocial(aggressive)	0.14	0.12	-0.02 ns	0.14	0.06 n.s	0.11	0.13
Unsocial(self-centred	0.30	0.21	0.12	0.20	0.17	0.14	0.28
Total problem.	0.42	0.23	0.29	034	0.34	0.29	0.45

NB: r 11-14 = $p < .05$ r 15-20 = $p < .005$ r 21+ = $p < .0001$

Most of the teachers factors correlated significantly with parents factors. For instance, the teacher Conduct problems factor correlated with all the parents' factors. The highest association was with the first principal factor (Developmental problems). The teacher fidgeting factor also correlated with all parent factors indicating a sort of positive association except for emotional vulnerability. The Anxious-fearful factor showed negative non-significant correlation with Unsociable-aggressive while Unhappiness had a non-significant correlation with Unsociable-lying and Unsociable-aggressive. Given no independent hyperactivity factor emerged from parents' ratings, the teachers' Hyperactivity score correlated with all parents factors. School problems was the highest correlation with this factor. It is interesting to note that the parents' school problems factor correlated well with all teacher derived factors. This might suggest that Sudanese parents were relatively accurate at rating their children's school problems. Or despite the differing situations parents and teachers have similar standards for what constitute school problems. However.

the most striking finding was that parents had .45 degree of agreement with teachers over the total problems rated.

6.4.4. Discussion of the Parent's Questionnaire

The factor structure of the present study was compared to factor structures obtained in other studies on Conners' parent rating scale. While our data yielded nine factors most of the previous studies showed four to eight factors (Conners, 1973; Shaley et al., 1995). Nevertheless, there were main features in several factors that would allow for interesting comparisons.

6.4.4.1. Conners' (1973)

In this study Conners reported eight factors: conduct problems, learning problems, psychosomatic, impulsive-hyperactivity, anxiety, perfectionism, antisocial, and muscular tension. Apart from the psychosomatic, perfectionism, muscular tension behaviour and hyperactivity factors, the other four shared some similarities with four factors in our solution.

Conduct problems:

Similar to Conners' (1973) in its order, the developmental problems factor emerged in our study as the main factor accounting for the greatest proportion of the variance. With regard to its components, however, a clear discrepancy between the two studies did occur. On the one hand, and as previously mentioned, our factor consisted of 10 items loaded, three of which indicated a type of defiance and aggressive behaviour problems (steals, destructive, untidy) in addition to other items reflecting a sort of developmental problems (bedwets, speech problems, excitable, feels hurt by others). On the other hand, seven items of defiance and aggressive components were reported in Conners' (1973) conduct factor. Obviously, the discrepancy here was due to the additional dimension of the developmental symptoms appeared in our factor.

Anxiety:

This factor which ranked second in Conners' study appeared as a seventh factor in the present study. In this respect, there was a striking similarity between the two studies as our factor showed anxiousness, sleep problems, and some eating problems.

Hyperactive impulsive:

In contrast to Conner' (1973), Hyperactivity did not emerge as a separate factor in the present study. Instead, some elements of hyperactivity overlapped with other factors.

Learning problems:

This factor included four items, three of which were exactly repeated in our second 'Attendance-Learning' problems factor reflecting distractibility from learning and school-avoidance problems. The fourth item had no counterpart in our factor was "Has no friends", whereas "Has truancy" was the fourth item in our factor which was not expressed in Conners' factor. Interestingly, truancy was believed to be a typical symptom related to school problems.

Anti-social behaviour:

In Conners' study, this factor which was composed of four items denoting anti-social stealing behaviour was quite similar to our eighth factor that consisted of four items denoting anti-social, lying behaviour. It is of interest to note that while stealing behaviour loaded on our first Developmental factor, it emerged as a separate anti-social factor in Conners' study. In contrast, lying behaviour which emerged in the anti-social factor in our structure, loaded on Conners' first Conduct problems factor.

The conclusion we can draw from this comparison is that apart from the slight difference in the first factor, four main factors in both studies were found to be quite similar conveying the same characteristics. The slight ambiguity shading our first factor arose from an overt overlapping of some emotionality items. Another important observation is the contrast of the anti-social lying and stealing dimensions in the respective studies.

6.4. 4. 2. Shalev *et al.* (1995)

These authors conducted a study in a representative sample of Israeli school as well as clinically referred children. Parents completed Conners-48 which is a revised and shortened version of Conners' Parent Scale. Factor analysis was also used to establish the factor structure of parents ratings. Although the authors had chosen to use this version on the basis of its relevance for externalising disorders (Shalev et.al, 1995), we will try to look at its relationship with our factor structure despite the difference in the two versions of the scale. Shalev *et al.* (1995) obtained four factors: Inattentive-passive, Conduct problems, Hyperactivity, and a final factor named Other items.

Inattentive-passive:

This factor was composed of nine items reflecting several dimensions of inattention, passiveness, daydreaming, learning problems, unsociability, and immaturity. It is interesting to note that inattention, a core element of hyperactive behaviour, appeared in this factor marking some departure from the Hyperactivity factor. In comparison with the present study we observed that Shalev et al's, (1995) first factor included the components of three factors of our structure; namely school problems, Unsociability, and Immaturity.

Conduct problems:
Marking some difference from most similar factor analytic studies, the Conduct problems came here as a second factor. Although there was no a clear conduct factor in our study, still some of its components appeared in the first factor.

Hyperactivity:
Hyperactivity emerged as a third factor in Shalev et al's structure composed of eight items reflecting restless, disturbing behaviour and inappropriate noises while impulsivity and inattention loaded on other factors. Such findings would put this factor at odds with our study since no hyperactivity factor was identified.

Other items:
This factor grouped items such as uncooperative, does not get along, and unaccepted to the group. Although the authors did not classify this factor as unsociable, it was similar to our Unsociable-aggressive factor that reflected aggressive, domineering and teasing behaviour.

In conclusion we can say that several discrepancies could be noticed between Shalev et al's factor structure and that of the present study. Firstly, the difference between the order and name of factors. Secondly, the absence of Hyperactivity in our study was a major discrepancy. Thirdly, on the basis of this comparison, we could say that our factor structure was relatively similar to the original Conners' (1973) factor structure rather than to that of Shalev et al's (1995). These differences could be attributed to the relatively large item pools we had in our version compared to the shortened one used by Shalev et al (1995). In addition and as previously mentioned those authors stated that they had used Conners-48 because they were only interested in identifying externalising behaviour.

6.5. Final Discussion

The present chapter reports the factor structure of the adapted versions of the Conners Teacher and Parent Rating Scales administered to a representative sample of 300 normal Sudanese school children. In a previous section, the factor structures of the parent and teacher questionnaire obtained were discussed and compared with other studies. In the following section results of reliability, prevalence, and parent-teacher agreement upon childhood deviance will be discussed.

6.5.1. Reliability of the Parent and Teacher Adapted Rating Scales

In the present study correlation coefficients were computed from the test and re-test scores. For the teachers' version almost all items obtained satisfactory correlation coefficients. Only two items had very low correlation coefficients and therefore they were

omitted from the scale to leave 34 items as a final version. In general, the test-retest item reliabilities of the teacher questionnaire ranged from .60 to .98, with a mean of .77. As for the parent version almost all items obtained satisfactory correlation coefficients. Only six items had very low correlation coefficients and these were deleted from the questionnaire. Accordingly, 64 items remained to make up the final version of the scale. In general, the test-retest item reliabilities of the parent questionnaire were ranging from .54 to 1.00. This finding seems to be quite satisfactory and accords with findings from other similar studies. However, few studies relevant to the stability of the Conners scales were reported (Glow, Glow, and Ramp, 1982). Milich et al (1980) described a repeated- measures reliability of .91 on the 10-item Conners' Hyperkinesis Index, for 120 boys rated by their teachers over a week-time interval. Correlations ranged from .63 to .91 were reported on five scales of the Conners (1969) for participants in a drug study over a month time interval. It is reported that in the short interval, reliabilities of instruments related to the CTRS were moderate to high (Glow, Glow, & Ramp, 1982). However, these authors mentioned that there were no reports of longer term repeated-measures reliability on the Conners instruments. Quay and Peterson (1979) found 1-year stability coefficient ranging from .21 to .58 for their four problem-behaviour factors from the Behaviour Problem Checklist. Victor and Halverson (1976) reported similar stability for boys but seemingly high stability for girls over a 2- year period. As previously mentioned, using the Behaviour Problem Checklist, Evans (1975) has found that short term reliabilities ranged from .82 to .98 for teacher ratings and around .70 for parent ratings.

When clinic attenders were followed up, the average correlations on the Child Behaviour Profile (Achenbach, 1978; Achenbach & Edelbrock, 1979) ranged from .71 to .73 for the six-month period, and from .42 to .55 for the 17- month period, while for small groups of normal children, one -week reliabilities were higher. Investigators (Glow, Glow, & Ramp, 1982; Achenbach & Edelbrock, 1979) have come to conclude that the longer the test-retest interval, the lower the correlations and where the raters see the children in different context, such as parent and teacher, correlations fall considerably.

6.5. 3. Correlation between Parents' and Teachers' Ratings

Investigators agree that there is relatively little agreement between the parents' and teachers' assessment concerning the identification and prevalence of childhood deviance and disorder (Rutter, 1975; Achenbach, 1978, Luke et al, 1989; Matuura et al, 1993). Results of the present study indicated that several factors from the teachers' questionnaire correlated with a large number of parent's factors particularly between the first principal factor in each version (Conduct problems-Developmental problems) which had the higher correlation coefficient (.43). However, one important finding is the fact that no independent hyperactivity factor emerged from parents' ratings whereas in the teachers' ratings it was

identified as a clear factor. In fact, in most of factor analytic studies examining the separate status of Hyperactivity there has been relatively little agreement between the teacher and parent ratings on these dimensions (McGee et al, 1985). In spite of the trend that correspondence between teachers' and parents' ratings for the same children tend to differ considerably and rarely reach .4 (Goette et al, 1978; Verhulst & Akkerhuis, 1989), the most striking finding in the present study is that parents and teachers report of total problems correlated at .45. Nonetheless, some investigators reported that although parent versus teacher factor correlations were found to be relatively acceptable, still they were lower than those produced by mother and father (Goyette, Conners, and Ulrich, 1978), parents and psychiatrists comparisons (Matsuura et al., 1993).

Teachers may have high expectations of children's behaviour so that they were too ready to give high scores for behaviour problems. In this connection, a recent study (Vitaro, Tremblay, & Gagnon, 1995) concluded that differences in teachers' ratings are related to variations in the management styles and strategies of teachers. Finally, one more possible reason for the relatively high levels of agreement might be the school environment and classroom atmosphere. In the Sudan, the classroom is fairly crowded since it accommodates around 50 pupils. In such environment and atmosphere teachers might not tolerate children's disruptive behaviour, and this is more likely to influence their ratings.

On the other side, parental dysfunction and family stress, may contribute to ratings of child deviance. For the moment, parents with high personal dysfunction may report greater child problems due to little tolerance of child misbehaviour and/or increased irritation of the adverse family conditions of disturbed child and parent behaviour (Kolko & Kazdin, 1993). More plausibly, family context variables such as parental involvement with the child, child acceptance and rejection, parents' management practices, and family environment are differentially related to parent's ratings of child behaviour problems (Webster-Stratton, 1991) and hence influence teacher-parents correspondence.

The impact of differences in behaviour at home and in the classroom on parents' and teachers' ratings might help one decides when to use which type of rating. In this respect, Achenbach and Edlebrock, (1978) emphasised that because observers and situations inevitably influence children's behaviour, it is probably more useful to determine which observers' ratings are most predictive of other important characteristics than to look for high levels of agreement among different observers.

6.5.4. Summary and Conclusions

In the light of the preceding discussion one might come to conclude that, in the psychometric sense, the Conners' parent and teacher rating scales achieved satisfactory validity and reliability and hence demonstrated their usefulness to the Sudanese culture. Moreover both adapted versions shared similarities and differences in factor structure with

other factor analytic studies on Conners' rating scales. This might tentatively suggest two things: First, our adapted versions of the Conners scales have achieved satisfactory level of linguistic and conceptual equivalence in the assessment of childhood psychopathology and hence they are cross-culturally valid. Second, though there were cultural characteristics peculiar to the Sudanese society that would be expected to influence patterns and rates of behaviour problem, Sudanese adults judged patterns of child behaviour to be similar in some ways to other societies. In addition, the moderate level of agreement between the Sudanese teachers' and parents' assessment over child behaviour problems highlights the potential benefit of information obtained from both of these sources. Finally, the present study demonstrated that it is possible to obtain seemingly reliable estimates of prevalence and structure of childhood behaviour problems from primary school teachers and parents with methods developed primarily for Western societies.

The primary goal in the present chapter was to develop an instrument that would provide a valid and reliable measure to effectively identify and quantify the Sudanese children's behavioural deviance and that will allow us to compare the structure of problems within the Sudan with those in other cultures. Hence, our results tend to provide further support for the experimental use of the Conners Rating Scales across different cultures. It is hoped that this information will be particularly useful to professionals and researchers in the Sudan while contributing, in general, to studies on Conners' rating scales as instruments for identifying child behaviour problems.

CHAPTER SEVEN

ASSOCIATIONS OF DEMOGRAPHIC, FAMILY, AND CHILD-CARE FACTORS WITH PARENTS' AND TEACHERS' RATINGS OF CHILD BEHAVIOUR PROBLEMS

7.1. Introduction

In the preceeding two chapters the structure of childhood behaviour problems (chapter 6) and a selected set of child-care and family characteristics in a sample of families living in Khartoum and Medani (chapter 5) were examined. The primary aim of this final empirical chapter was to explore the relationship between these two sets of variables and so to examine the effects of variations in patterns of demographic, child-care and family life on children's behavioural and emotional adjustment in the Sudan. Thus the child's behaviour problems were examined within the context of the systems in which he lives-in his family, social surroundings, school, and community.

Research in developmental psychopathology has identified a number of childhood, sociodemographic, family, and parental characteristics that are associated with increased levels of psycho-social stress and so to a greater risk of behavioural and mental health problems in western societies (Emery, 1982; Fergusson & Lynskey, 1996). It seems that a combination of such risk factors is likely to be particularly significant (Blanz, Schmidt, & Esser, 1991; Fergusson, Horwood, & Lynskey, 1994; Shaw & Emery, 1988; Shaw, Vondra, Hommerding, Keenan & Dunn, 1994). Although the mechanisms underlying maladjustment are not yet entirely clear, factors such as family structure and subsequent parental styles of child-care (Al-Awad & Sonuga-Barke, 1992), family characteristics (Sonuga-Barke, Stevenson & Thompson, 1996), poor quality of maternal and nonmaternal day-care (Belsky, 1988), insecure mother-child attachment during the first year (Lewis, Feiring, McGuffog, & Jaskir, 1984), disadvantdged home backgrounds (McGee, Williams, & Silva. 1984) and family turmoil (Emery, 1982) are associated with higher levels of childhood psychopathology.

As mentioned in chapter four the selection of factors studied in the present thesis was informed by the literature on child-care and behaviour problems as well as that pertaining to childhood adjustment in non-western societies like the Sudan. In particular, the present analysis will study the role of gender, family structure, family size, grandparents' involvement in child-rearing practices, physical discipline, and religion that are expected to have major impact on childhood psychopathology in the Sudan.

To supplement the selective review of the literature provided in chapter four, what follows is a brief review on the role of gender and religion in the development of childhood disorders.

7.1.1. The Role of Gender in Child Behaviour Problems

There has been a number of suggestions in the literature that gender may influence the way that behaviour problems are expressed during childhood. In general, in early childhood and before puberty boys tend to display higher levels of a range of problems than girls (Keenan & Shaw, 1994; McGee, et al., 1984). Problems were reported more frequently for boys with undercontrolled problems whereas the problems reported most frequently for girls tended to be overcontrolled. For instance Achenbach & Edelbrock, (1981) through the application of the TRF completed by the teachers of clinically referred and nonreferred 4-16-year-old children, were able to identify externalising and internalising behaviour problems across gender. Moreover, Campbell's review (1990) of a series of longitudinal studies of hard-to-manage preschool children revealed that at least 50% of preschool-age children with moderate-to-severe externalising problems continued to show some degree of disturbance at school age, with boys problems more severe than girls' behaviour, displaying attention-deficit hyperactivity disorder as a main feature. While boys display higher rate of conduct problems, this is the second most common psychiatric disorder in girls (e.g., Robins, 1986) and is likely to result in persistent health problems in adulthood. However, epidemiological studies suggest that by adolescence, there is very little difference in the prevalence rates of conduct problems by gender (e.g., McGee, Feehan, Williams, & Anderson, 1992).

In further support for the view that girls show more internalising problems than boys, Fonseca, Yule, & Erol, (1994) reported that in a series of studies comparing fears across samples from different North American and European countries girls consistently scored higher than boys. These authors confirmed that these respective findings, in general, are in line with the dominant view in the area of children's fears. Furthermore, Marks (1987) in his review of the development of normal fears reported that more fearfulness is noted among girls specially in the teenage years. With regard to depression, another internalising symptom, Lewinsohn, Hops, Roberts, Seeley, & Andrews, (1993) found that female students, in keeping with other findings, scored substantially higher than male students on all indexes of unipolar depression.

As far as Sudanese children are concerned there are very few studies that have examined childhood psychiatric disorders and these are mostly discriptive in nature (e.g., Baasher and Ibrahim, 1976; Cederblad, 1968; Rahim & Cederblad, 1984). However, reporting on prevelence, Rahim & Cederblad, (1984) pointed out that at school age boys in general have more behavioural symptoms than girls. While sleep disturbances, feeding difficulties, and

anxiety are more frequent in girls, aggressiveness and overactivity more notably present in boys (Baasher and Cederblad, 1968; Rahim & Cederblad, 1984). It is obvious that these findings are consistent with the general literature on the effects of gender.

There have been a number of suggestions as to why this might be the case. In a review of sex differences in childhood psychopathology, Eme (1979) reported that discord and disruption in the home were consistently and strongly associated with antisocial disorders in boys but were considerably less so in girls. For example, studies about the effects of marital discord or divorce have suggested that females may be less reactive to family stress than males (Emery & O'Leary, 1982; Hetherington, 1989). For instance, Hetherington (1989) reported that girls exposed to parental divorce and discord showed lower rates of adjustment problems than boys. Boys are more vulnerable than girls to all types of stressful life-events (Zaslow & Hayes, 1986). Furthermore, Zaslow (1989) found that discord leads to a greater increase in externalising behaviours for sons than for daughters only when they are preadolescents. In addition, marital aggression predicts conduct problems better for boys than for girls (Jouriles & LeCompte, 1991), as does marital hostility (Porter & O'Leary,1980). Rutter (1971) found that discordant intact marriages was associated with school problems in boys but not in girls. However, Whitehead (1979) questioned this finding arguing that the relation with family turmoil was obscured because girls inhibit aggression in school. She presented data from a normative sample showing significant associations between mothers' reports of the marriage and both boys and girls problems at school. Emery (1982) concluded that it may be that there is a sex difference in response to marital discord, but the difference is in how and how much the sexes respond, not whether they do. In addition, perception of gender in a given culutre might play a significant role in the content, pattern and level of behaviour problems (Ollendick, Yang, King, Dong, & Akande, 1996).

7.1.2. The Effect of Religious Practice on the Development of Emotional and Behavioural Problems of Children

The realtionship between religious practice and childhood disorders has been an area of interest for two reasons. First, the recent inclusion of 'religious or spiritual problem' as a diagnostic category for the first time in the DSM-IV confirms that religious and spiritual issues can be the focus of psychiatric consultation, treatment and research (Turner, lukoff, Barnhouse, & Lu, 1995). In fact the advocates of this trend argued that the religious and spiritual dimensions of culture are among the most important factors that shape human experience, beliefs, values, behaviour and illness patterns (Baasher, 1982; Turner et. al, 1995). For instance, Koenig (1993) reported that both cross-sectional and longitudnal studies have documented the positive relationship between religiosity or spiritual beliefs of the elderly and their coping with ill health and difficult life circumstances, enhance their

psychological wellbeing and life-satisfaction. In another study Koenig, Cohen, & Blazer (1992) combined a sample of 1000 older and younger hospitalised patients to investigate the relationship between mental health and religious coping and they concluded that religious behaviours, such as prayer, reading religious literature such as the Bible, and expression of trust or faith in God buffer both younger and older individuals against the stress of hospitalisation and illness.

Second, rather than a specific focus for mental health problems the role of religion as a protective feature of difficult environments has been explored on a number of occasions. For example, investigating psychosocial factors among members of religious and secular Kibbutzim, Kark, Carmel, Sinnreich, Goldberger, Friedlander (1996) found that religious Kibbutzim members had a higher sense of coherence and a lower level of hostility than their secular counterparts. These authors stated that their findings were consistent with an interpretation that Jewish religious observance might enhance the formation of certain protective personality characteristics. Members in a cohesive religious Kibbutzim community may increase host resistence to stressors and thereby promote overall well-being and positive health status. They concluded that these findings could reflect an interplay of individual and collective attributes of religion. Furthermore, feelings of self-esteem tend to be lowest for those with very little religious commitment rather than those with moderate levels of religious involvement (Krause, 1995). Likewise, studies on the effect of religion in Black American communities demonstrated that religion offers specific systems of values, beliefs, and practices that enhance self-development, foster self-esteem and promote leadership skills (Brown & Gary, 1991).

As far as children are concerned there is little data on the direct effect of religion on their behaviour. However, Brown & Gary (1991) examined the role of religion as an agent of socilasation for African Americam adolescents. In reviewing the available literature they suggested a number of social functions of religion particularly salient to the socialisation experience. These included psychological, emotional and social support, social interaction and identity, promotion of creativity, education and economic activities. Brown & Gary concluded that religious socialisation was found to enhance children's moral and social development, self-image, and educational attainment and achievement. Religious families and religiously-oriented social sourroundings are therefore expected to mean a lot to chidren's healthy development. In this connection, factors such as alienation, social insecurity, violence, bad group pressure, broken families, alcohol abuse and crime in parents, which are belived to be allied to children's negative outcomes and behavioural deviance, are relatively rare in religious communities and families (Badri, 1979; Rahim & Cederblad, 1984). Nonetheless, empirical data are not clear on how family variables affect the extent to which relgiosity relate to childhood behaviour problems.

7.2- Results

7.2.1. Univariate and Multivariate Tests of Association

The association between a number of background characteristics and child outcomes is ultimately a problem of multivariate prediction in which the relative contribution of these variables to predicting child outcome is established. However, in order to simplify the interpreation of results the association between each predictor and outcome was first established independently. Multivariate models were only employed where more than one variable accounted for a signifiacant part of the variance in outcome.

The predictor variables were those measures derived following data reduction and described in chapter five Table 6. The outcome variables were the scale scores for the teacher and parent factors of sufficiently high internal reliability shown in chapter six, Table 3 and 7.

7.2.1.1. Univariate Associations between Demographic, Family, and Child-care Variables and Child Behaviour Problems

Because a number of the predictors derived following data reduction were continuous the univariate associations between teacher and parent ratings were explored using Spearman Correlation. Tables 1 and 2 reveal the strength of the non-parametric correlations between the predictor variables and parent and teacher ratings of problems and their level of signifiance. There were some interesting patterns of associations with a number of *t* correlations between predictors and outcomes. Although these were generally low, they were significant. However, caution must be taken with regard to the contribution of these small correlations when interpreting these results.

First, parents' age correlated positively with anxious-fearful behaviour, conduct problems, unsociability, developmental problems, emotional vulnerability, and sucking problems. Interestingly it correlated negatively with fidgeting ($r= -.14\ p <.05$). Second, the number of children in the family negatively correlated with fidgeting ($r= -.15\ p <.008$), unsociable-self-assertive ($r= -.16\ p <.005$), and sleep problems ($r= -.12\ p <.05$). This indicates that the bigger the family the less symptoms of fidgeting, unsociability and anxiety were reported. Late weaning correlated with conduct problems ($r= .15\ p <.008$), developmental problems, ($r= .19\ p <.001$), emotional vulnerability, ($r= .12\ p <.05$), and school problems ($r= .14\ p <.05$). Grandparents' involvement in child-care correlated only with anxiety-fear problems ($r= .13\ p <.05$). Mother's level of contact with child correlated with hyperactivity ($r= .11\ p <.05$) and unhappiness ($r= .12\ p <.05$).

Interestingly there was little relationship between social class (as measured in father's status) and children's outcome. Father status correlated with unhappiness only ($r= .13\ p$

<.05) while mother status showed no significant correlation with any variable. Higher levels of father status did not seem to be associated with happiness of their children. The finding that mother status has no significant correlations with behavioural and emotional difficulties of children was unexpected.

Table1 Shows Correlations Between Demographic, Family, Child-Care Variables And Parent Scale Factor Scores Of Child Behaviour Problems

	Aggressiveness	self-assertive	Developmental problems	Emotionally immature	Emotionally vulnerable	School problems	Sleep problems	Sucking problems	Unsociable-lying
Parent age	0.05	-0.08	0.13*	-0.06	0.13*	0.03	-0.01	0.11*	0.01
Number of children	0.03	-0.16**	0.04	-0.02	-0.04	-0.10	-0.12*	0.05	0.08
Father's status	0.05	-0.01	0.06	-0.05	0.08	0 .06	0.07	0.05	-0.01
Mother's status	0.02	-0.01	-0.04	-0.06	0.08	0.03	-0.02	-0.02	-0.06
Late weaning	0.04	0.06	0.19**	0.03	0.12*	0.14*	0.03	0.09	0.07
Family structure	0.00	0.03	0.12*	-0.01	0.02	0.12*	0.06	0.08	-0.01
Grandparent involvement	-0.00	-0.01	0.08	-0.03	-0.08	0.04	-0.07	0.09	-0.07
Mother's level of contact	0.09	0.01	0.07	0.07	0.07	-0.08	0.01	0.09	-0.03

NB: * *p<.05;* ** *p.01*

Table 2: Correlations Between Demographic, Family, Child-Care Variables And Teacher Scale Factor Scores Of Child Behaviour Problems

	Anxious-fearful	Conduct Problem	Fidgeting	Hyperactivity	Unhappy	Unsociable
Parent age	0.14*	0.11*	-0.14*	-0.03.	0.02	0.16**
Number of children	-0.04	-0.07	-0.15**	-0.09	-0.05	0.02
Father's status	0.08	0.10	0.04	0.05	0.13*	-0.01
Mother's status	-0.03	-0.02	0.08	0.08	0.06	-0.06
Late weaning	0.09	0.15**	0.01	0.01	0.08	0.03
Family structure	-0.01	0.07	0.03	0.05	0.11*	0.12*
Grandparent -involvement	-0.13*	0.03	0.08	-0.03	0.06	0.02
Mother's level of contact	0 .02	0.05	0.02	0.11*	0.12*	0.02

NB: * *p<.05;* ** *p.01*

7.2. 2. The Effect of Gender on Patterns of Behaviour Problems: Parents Ratings

In order to test the effect of sex on behaviour problems, the data from the teacher and parent questionnaires were submitted to two MANOVA'S. Sex was the independent variable while the factor scores for the teacher and parent scales were the dependent variables.

Multivariate F-tests on parents ratings, revealed overall significant difference between boys and girls *F= (10, 289) = 2.64; p < .004*). However, the univariate tests showed that the difference between girls and boys was only significant on the aggressiveness variable (see Table 3). This might indicate the high contribution of aggressiveness to the multivariate model. Boys were more aggressive than girls.

Table 3: The Effect Of Gender On Behaviour Problems As Reported By Parents

Variable Sex	Means	Sd.	F-value	Probability
Antisocial-aggressive				
girls	5.15	2.18		
boys	6.23	2.72	14.2	p <.0001
Antisocial self-assertive				
girls	8.20	3.06		
boys	8.50	3.40	0.60	n.s
Developmental problems				
girls	14.02	5.29		
boys	13.76	4.57	0.21	n.s
Emotional immature				
girls	13.24	4.58		
boys	13.28	4.18	0.04	n.s
Emotional vulnerable				
girls	6.82	2.53		
boys	6.38	2.16	2.65	n.s
School problems				
girls	5.70	2.64		
boys	5.47	2.37	0.66	n.s
Sleep problems				
girls	7.86	3.15		
boys	7.77	2.98	0.06	n.s
Sucking problems				
girls	4.32	1.96		
boys	4.11	1.71	0.99	n.s
Unsociable-lye				
girls	6.45	2.50		
boys	6.66	2.57	0.52	n.s

df =290

7.2. 3. The Effect of Gender on Patterns of Behaviour Problems: Teachers Ratings

With respect to teachers ratings, multivariate F-tests revealed no overall effect of sex F= *(6, 293) = 0.64; p < .6)*. This finding was consistent across factor scores as revealed by the univariate F-tests (see Table 4). This result might suggest that boys' aggressiveness was only evident in the home rather than in the school environment.

Table 4: The Effect Of Sex On Behaviour Problems As Reported By Teachers

Variable	Means	Sd.	F-value	Probability
Conduct problems				
girls	9.82	3.94		
boys	9.90	3.64	0.03	n.s
Fidgeting				
girls	7.01	2.34		
boys	7.36	2.80	1.41	n.s
Hyperactivity				
girls	6.53	2.11		
boys	6.95	2.80	2.13	n.s
Anxious-fearful				
girls	8.65	3.32		
boys	8.50	3.17	0.15	n.s
Unhappy				
girls	4.66	1.88		
boys	4.77	1.86	0.24	n.s
Unsociable				
girls	4.54	1.71		
boys	4.48	1.80	0.69	n.s

df =293

7.2. 4. The Role of Religion: Parents' Ratings

Turning to examine the effect of religion on patterns of behaviour problems reported by parents, multivariate F-tests revealed overall striking effect *(F= (9, 290) = 11.8; p < .0001)*. This finding was also consistent across factor scores as the univariate tests revealed significant effect of religion upon each pattern of child behaviour problems (see Table 5).

Table 5: The Effect Of Religion On Behaviour Problems As Reported By Parent

Variable	Mean	Sd.	F-value	Probability
Antisocial-aggressive				
religious	5.41	2.38		

Table 5 cont.

Table 5 cont.

non-religious	7.04	2.78	18.76	p < .0001
Antisocial self-assertive				
religious	7.85	2.94		
non-religious	10.73	3.55	37.94	p < .0001
Developmental problems				
religious	12.83	3.10		
non-religious	18.90	8.07	82.77	p < .0001
Emotional immature				
religious	12.64	3.91		
non-religious	16.21	5.23	31.52	p < .0001
Emotional vulnerable				
religious	6.25	2.01		
non-religious	8.21	3.12	32.77	p < .0001
School problems				
religious	5.12	2.01		
non-religious	7.83	3.34	59.90	p < .0001
Sleep problems				
religious	7.40	2.58		
non-religious	9.81	4.22	28.95	p < .0001
Sucking problems				
religious	3.93	1.52		
non-religious	5.56	2.52	37.93	p < .0001
Unsociable-lye				
religious	6.17	2.26		
non-religious	8.40	2.93	37.26	p < .0001

NB. df =290.

7.2.5. The Role of Religion: Teachers' Ratings

As far as teachers ratings were concerned, multivariate F-tests revealed overall significance of religion (*F= (6, 293) = 4.9; p < .0001*). Similarly, the effect of religion on each variable of behaviour problems was also indicated by the univariate F-tests (see Table 6).

Table 6: The Effect Of Religion On Each Pattern Of Behaviour Problems As Reported By Teachers

Variable	Means	Sd.	F-value	Probability
Conduct problems				
religious	9.35	3.19		
non-religious	12.29	5.27	28.04	p < .0001
Fidgeting				
religious	7.04	2.51		
non-religious	7.85	2.87	04.12	p < .04
Hyperactivity				
religious	6.54	2.28		
non-religious	7.71	3.16	09.68	p < .002
Anxious-fearful				
religious	8.35	3.03		
non-religious	9.67	3.95	07.49	p < .007
Unhappy				
religious	4.62	1.86		
non-religious	5.19	1.85	03.99	p < .04
Unsociable				
religious	4.35	1.58		
non-religious	5.25	2.30	11.39	p < .001

df =293.

7.2.6. The Effect of Breast-feeding: Parents' Ratings

Multivariate (*F= (9, 290) = 1.1 p < 0.3*) and univariate F-tests (see Table 7) indicated that breast-feeding, as viewed by parents, had no significant effect in determining behaviour problems in the present sample.

Table 7: The Effect Of Breast-FeedingOn Behaviour Problems As Reported By Parents

Variable	Means	Sd.	F-value	Probability
Antisocial-aggressive				
breastfed	5.73	2.52		
non-breastfed	5.46	2.62	0.36	n.s
Antisocial self-assertive				
breastfed	8.34	3.13		
non-breastfed	8.49	4.05	0.06	n.s
Developmental problems				
breastfed	14.00	5.13		
non-breastfed	13.00	2.89	1.27	n.s
Emotional immature				
breastfed	13.22	4.36		
non-breastfed	13.57	4.52	0.20	n.s
Emotional vulnerable				
breastfed	6.55	2.29		
non-breastfed	6.94	2.83	0.87	n.s
School problems				
breastfed	5.65	2.58		
non-breastfed	5.11	1.82	1.42	n.s
Sleep problems				
breastfed	7.85	3.08		
non-breastfed	7.57	2.89	0.26	n.s
Sucking problems	4.21	1.84	0.30	n.s
breastfed	4.19	1.80		
non-breastfed	4.37	2.11	0.30	n.s
Unsociable-lye				
breastfed	6.55	2.52		
non-breastfed	6.57	2.63	0.08	n.s

df =290.

7.2. 7. The Effect of Breast-feeding: Teachers' Ratings

Both multivariate ($F= (6, 293) = 1.5; p < 0.1$) and univariate F-tests (see Table 8) analyses on teachers ratings revealed no effect of breast-feeding on children's adaptive development.

Table 8 Reports The Effect Of Breast-FeedingOn Behaviour Problems As Reported By Teachers

Variable	Means	Sd.	F-value	Probability
Conduct problems				
breastfed	9.89	3.80		
non-breastfed	9.66	3.76	1.07	n.s
Fidgeting				
breastfed	7.28	2.59		
non-breastfed	6.46	2.44	0.11	n.s
Hyperactivity				
breastfed	6.74	2.50		
non-breastfed	6.77	2.52	3.16	n.s
Anxious-fearful				
breastfed	8.50	3.21		
non-breastfed	9.11	3.45	0.03	n.s
Unhappy				
breastfed	4.71	1.82		
non-breastfed	4.85	2.23	1.49	n.s
Unsociable				
breastfed	4.55	1.79		
non-breastfed	4.17	1.44	0.20	n.s

df =290.

7.2.8. The Impact of Smacking: Parents' Ratings

In examining the effect of physical discipline on childhood behaviour problems, multivariate F-tests showed an overall significant effect ($F= (9, 261) = 1.9; p < .04$). The univariate F-tests confirmed this effect on various individual behaviour problems. Particularly, developmental problems, emotional immaturity, emotional vulnerability, school problems, and sucking problems (see Table 9).

Table 9: The Effect Of Physical Discipline On Behaviour Problems As Reported By Parents

Variable	Means	Sd.	F-value	Probability
Antisocial-aggressive				
unsmacking	5.31	2.80		
smacking	6.31	2.48	1.58	n.s
Antisocial self-assertive				
unsmacking	7.84	3.05		
smacking	9.10	3.5	1.58	n.s
Developmental problems				
unsmacking	12.26	2.58		
smacking	13.66	3.73	4.53	$p < .01$
Emotional immature				
unsmacking	12.77	3.77		
smacking	15.00	5.05	2.76	$p < .05$
Emotional vulnerable				
unsmacking	5.91	1.82		
smacking	7.34	2.74	4.22	$p < .01$
School problems				
unsmacking	4.73	1.63		
smacking	5.62	2.03	4.62	$p < .01$
Sleep problems				
unsmacking	7.06	2.32		
smacking	7.89	259	2.36	n.s
Sucking problems				
unsmacking	3.45	1.02		
smacking	4.66	2.22	6.96	$p < .001$
Unsociable-lye				
unsmacking	6.11	2.32		
smacking	7.44	3.16	2.74	n.s

df =290

7.2.9. The Impact of Smacking: Teachers' Ratings

Unlike parents, multivariate analysis on teachers ratings showed no overall effect of physical punishment in children's behavioural and emotional difficulties ($F= (6, 264) = 0.55; p < .8$). This was consistent with results obtained from the univariate analysis (see Table 10). The finding would indicate that the effect of the use of physical

punishment was only implicated in home rather than in school environment.

Table 10: The Effect Of Physical Discipline On Behaviour Problems As Reported By Teachers

Variable	Means	Sd.	F-value	Probability
Conduct problems				
unsmacking	9.32	3.48		
smacking	9.31	3.08	0.78	n.s
Fidgeting				
unsmacking	7.02	2.38		
smacking	7.20	2.82	1.31	n.s
Hyperactivity				
unsmacking	6.44	2.30		
smacking	6.62	2.22	0.16	n.s
Anxious-fearful				
unsmacking	8.16	3.33		
smacking	9.00	3.56	0.67	n.s
Unhappy				
unsmacking	4.52	1.98		
smacking	4.38	1.47	2.58	n.s
Unsociable				
unsmacking	4.21	1.62		
smacking	4.06	1.10	1.16	n.s

df =293.

Table 11 (a+b) shows the distribution of associations between the different factors and the various background variables. Where two or more predictors were associated with an outcome further analysis was performed using multiple regression.

Table 11a: Associations Between Demographic, Family, Child-Care Variables And Scales Factor Scores Of Child Behaviour Problems

	Aggressiveness	self-assertive	Developmental problems	Emotionally immature	Emotionally vulnerable	School problems	Sleep problems	Sucking problems	Unsociable-lying
Parent age			*		*			*	
Number of children		*					*		
Father's status									
Mother's status									
Late weaning			*		*	*			
Family structure			*			*			
Grandparent involvement									
Mother's level of contact									
Gender	*								
Religiosity	*	*	*	*	*	*	*	*	*
Breast-feeding									
Smacking			*	*	*	*			

Table 11b: Associations Between Demographic, Family, Child-Care Variables And Scales Factor Scores Of Child Behaviour Problems

	Anxious-fearful	Conduct Problem	Fidgeting	Hyperactivity	Unhappy	Unsociable
Parent age	*	*	*			*
Number of children			*			
Father's status					*	
Mother's status						
Late weaning		*				
Family structure					*	*
Grandparent involvement	*					
Mother's level of contact				*	*	
Gender						
Religiosity	*	*	*	*	*	*
Breast-feeding						
Smacking						

7.2.10. Multivariate Predictions of Children's Behaviour Problems

In the preceding analyses the univariate and multivariate associations between variables were explored. It was clear that a complex pattern of these associations existed between the background variables and the factor scores of children's behaviour problems. In order to explore the relative contribution of the demographic variables in cases where multiple associations have been found, standard multiple regression analyses were employed.

Aggressiveness

Parental religosity and child's gender were introduced as predictor variables into a regression analysis with aggressiveness as the outcome. The value of the multiple correlation *(R= .34, p<0.001)* highlights the predictive quality of the overall regression model. Both variables accounted for significant proportions of the variance in children's aggressive behaviour. This suggests that the levels of parental religosity and child's sex are both significant predictors for children's aggressive behaviour even when the other is controlled for (see table 12).

Table 12: Variables Predicting Children's Aggressive Behaviour

Factors	Beta	*t*-value	Probability
Parental religosity	.27	4.84	<.0001
Sex	.24	4.34	<.0001

Antisocial selfish behaviour

Parental religiosity and number of children were introduced into a regression analysis with children's antisocial selfish behaviour as the outcome variable. The multiple correlation of the overall regression model *(R=.35; p <0.0001)* indicated good associations between these variables. Although both parental religiosity and the number of children in family were significant predictors of children's antisocial selfish behaviour, parental religiosity showed a higher level of significance (see table 13). The negative prediction value (t =-2.00) of the number of children would imply that the more children were in a family the less likely they showed antisocial selfish behaviour.

Table13: Variables Predicting Children/s Antisocial Selfish behaviour

Factors	Beta	*t*-value	Probability
Parental religosity	.32	5.78	<.0001
Number of children	-11	-2.00	<.05

Developmental problems

Parent's age, family type, parental religiosity, physical discipline (smacking) and late weaning were all included in a multiple regression analysis as predictors with child's developmental problems as the outcome variable. Results showed that all of these factors were significant predictors of child's developmetal problems (Table 14). The high value of the multiple correlation *(R=.52; p <0.0001)* indicated strong associations between these predictors. Again parental level of religiosity was the strongest predictor of children's developmental problems.

Table 14: Variables Predicting Child's Developmental Problems

Factors	Beta	*t*-value	Probability
Parental religosity	.46	9.04	<.0001
Smacking	.10	1.89	<.05
Parent's' age	.10	1.90	<.05
Family type	.11	2.20	<.02
Late weaning	.12	2.26	<.02

Emotional immaturity

Parental religiosity and the use of physical discipline (smacking) were entered into a regression model with children's emotional immaturity as the outcome variable. The multiple correlation of the overall regression model *(R=.33; p <0.0001)* indicated good associations between these predictor variables. However, results revealed that parental level of religiosity was the only significant predictor of children's emotional immaturity (see table 15).

Table 15: Variables Predicting Emotional immaturity

Factors	Beta	*t*-value	Probability
Parental religosity	.31	5.56	<.0001
Smacking	.10	1.84	n.s

Emotional vulnerability

Parent's age, parental religiosity, physical discipline (smacking) and late weaning were all included in a multiple regression analysis with children's emotional vulnerability as the outcome variable. Results showed that parents' age, parental religiosity and the use of

physical discipline (smacking) were significant predictors of children's emotional vulnerability (Table 16). The value of the multiple correlation *(R=.38; p <0.0001)* indicated good associations between these factors as predictors of children's emotional vulnerability. Once again, the predictive value of parental level of religiosity was the strongest overall.

Table 16: Variables Predicting Children's Emotional Vulnerability

Factors	Beta	*t*-value	Probability
Parental religosity	.30	5.51	<.0001
Smacking	.16	2.89	<.005
Parent's' age	.12	2.17	<.05
Late weaning	.08	1.54	n.s

School problems

Family type, parental religiosity, physical discipline (smacking) and late weaning were entered into a multiple regression analysis as predictors with children's school problems as the outcome variable. Results showed that parental level of religiosity, smacking, and family type were significant predictors of child's school problems (Table 17). The high value of the multiple correlation *(R=.44; p <0.0001)* revealed strong associations between these factors as predictors of children's school problems.

Table 17: Variables Predicting School Problems

Factors	Beta	*t*-value	Probability
Parental religosity	.39	7.26	<.0001
Smacking	.12	2.20	<.02
Family type	.12	2.29	<.02
Late weaning	.08	1.59	n.s

Sleep Problems

Parental religiosity and the number of children in family were entered into a regression model with children's sleep problems as the outcome variable. The multiple correlation of the overall regression model *(R=.31; p <0.0001)* indicated good associations between these predictor variables. However, results showed that parental level of religiosity was the only significant predictor of children's sleep problems (see table 18).

Table 18: Variables Predicting Sleep Problems

Factors	Beta	*t*-value	Probability
Parental religosity	.29	5.56	<.0001
Number of children	-.07	-1.25	n.s

Oral Problems

Parental religiosity and parents' age were introduced into a regression model with children's oral problems as the outcome variable. The multiple correlation of the overall regression model *(R=.35; p <0.0001)* showed that there were good mutiple associations between these predictor variables. Both variables were found to be significant predictors of children's oral problems (see table 19).

Table 19: Variables Predicting Oral Problems

Factors	Beta	*t*-value	Probability
Parental religosity	.34	6.17	<.0001
Parents' age	.10	1.9	<.05

Conduct Problems

Parental religiosity, parents' age and late weaning were entered into a regression model with children's conduct problems as the outcome variable. The multiple correlation of the overall regression model *(R=.33; p <0.0001)* showed that there were good mutiple associations between these predictor variables. Parental religiosity and late weaning variables were found to be significant predictors of children's conduct problems (see table 20).

Table 20: Variables Predicting Conduct Problems

Factors	Beta	*t*-value	Probability
Parental religosity	.28	5.05	<.0001
Parents' age	.10	1.83	n.s
Late weaning	.11	2.00	<.05

Fidgeting

Parental religiosity, parents' age and number of children were included into a regression equation with fidgeting as the outcome variable. The modest value of the multiple correlation of the overall regression model *(R=.21; p <0.005)* suggested that there were

weak associations between these predictor variables. Moreover, none of the variables entered was found to be a significant predictor for fidgeting (see table 21).

Table 21: Variables Predicting Fidgeting

Factors	Beta	*t*-value	Probability
Parental religosity	.11	1.87	n.s
Parents' age	-.11	-1.84	n.s
Number of children	-.10	-1.69	n.s

Hyperactivity

Parental religiosity and the level of mother's contact were introduced into a regression analysis with hyperactivity as the outcome variable. Both variables were found to be significant predictors of hyperactivity (see Table 22). However, the associations between these predictors were modest as indicated by the low value of the multiple correlation of the overall regression model *(R=.21; p <0.005)*.

Table 22: Variables Predicting Hyperactivity

Factors	Beta	*t*-value	Probability
Parental religosity	.19	3.31	<.001
Level of mother's contact	.12	2.14	<.03

Fears and Anxiety

Parental religiosity, parents' age and grandparental inolvement in child-care were introduced into a regression model with children's fears and anxiety as the outcome variable. The multiple correlation of the overall regression model *(R=.24; p <0.0001)* showed relatively good associations between these predictor variables. All the three variables were found to be significant predictors for children's fears and anxiety problems. Interestingly, the results revealed that the higher grandparental involvement in childcare the less likely their greandchildren displayed fears and anxiety (see Table 23).

Table 23: Variables Predicting Fears and Anxiety

Factors	Beta	*t*-value	Probability
Parental religosity	.15	2.74	<.005
Parents' age	.13	2.38	<.01
Grandparental involvement	-.12	-2.17	<.05

Unhappiness

Parental religiosity, family type, father status and high level of mother's contact were introduced into a regression model with children's unhappiness as the outcome variable. Parental religiosity, father status and high level of mother's contact were found to be significant predictors of children's unhappiness (see Table 24). The multiple correlation of the overall regression model *(R=.24; p <0.001)* showed reasonably good associations between these predictor variables.

Table 24: Variables Predicting Unhappiness

Factors	Beta	*t*-value	Probability
Parental religosity	.14	2.44	<.01
Level of mother's contact	.13	2.32	<.02
Father status	.11	1.96	<.05
Family type	.10	1.80	n.s

Unsociability

Parental religiosity, parents' age and family type were introduced into a regression model with children's unsociability as the outcome variable. The multiple correlation of the overall regression model *(R=.26; p <0.0001)* indicated good mutiple associations between the predictor variables. Parental religiosity and parents' age were shown to be significant predictors of children's unsociability (see Table 25).

Table 25: Variables Predicting Unsociability

Factors	Beta	*t*-value	Probability
Parental religosity	.18	3.12	<.001
Parents' age	.16	2.76	<.005
Family type	.11	1.85	n.s

7.3. Discussion

The aim of the present chapter was to examine how the different characteristics of the ecology of child development in urban Sudanese society were associated with patterns of behaviour problem of Sudanese children. The findings suggest a number of ways in which the study of sociocultural factors generally, and those in the Sudanese society in particular, may contribute to our understanding of childhood behaviour problems. A number of

demographic, family factors, and child characteristics were found to be related to behaviour problems displayed by Sudanese children. On the whole these associations were weak, but there were a number of findings of special interest. Although caution must be taken in interpreting results in terms of correlational pattern, the correlations between demographic, family, child-care variables and parents and teacher scales factor scores of child behaviour problems in the present study remain informative and encourage further exploration of the causes of problems.

7.3.1. Parent's Age and Behaviour Problems

First, the positive correlation between parents' age and a number of childhood behaviour problems (anxious-fearful behaviour, conduct problems, unsociability, developmental problems, emotional vulnerability, and sucking problems) might tentatively suggest that old parents are probably less effective in socialising their children. One possible explanation is that old parents are less likely than young parents to live in extended families where social and emotional support and help in child-care are readily available giving children a better chance of healthy adjustment (Al-Awad & Sonuga-Barke, 1992; LLoyd & Desai, 1992; Wilson,1984). However, more interestingly parents' age correlated negatively with fidgeting. In this respect it might be suggested that older parents are promptly more traditional in their attitudes towards child discipline and reinforce control over children's behaviour.

7.3.2. Family Size and Behaviour Problems

The present findings also revealed the number of children in family negatively correlated with fidgeting, unsociable-self-assertive behaviour and sleep problems. This might indicate that big families reduce these problems. In non-Western societies big family size is reported to have been more related to extended than nuclear families, and to traditional rather than modern ideals of child-rearing practices (Al-Awad & Sonuga-Barke, 1992; Atabani, 1985; Indralal De Silva, 1992; Kalu, 1992). In the light of this, on the one hand the present finding is consistent with previous ones obtained in non-Western studies. On the other hand the finding stands in sharp contrast with findings and societal attitudes prevalent among middle class in Western countries where it is believed that big family size is associated with an increased risk of childhood psychopthology.

7.3 3. Reflections on Traditionality (Grandparents) and Children's Behaviour Problems

As previously mentioned, there is good evidence to suggest that both direct and indirect involvement of grandparents in child-care positively affect the child's cognitive and socio-emotional development (Bandura, 1986; Al-Awad & Sonuga-Barke, 1992). However, in the present results this is only evident in the case of anxiety type problems where more

grandparental involvement in child-care was associated with less problems. It is possible that the sense of security and close attachment that the grandparent can provide to the grandchildren may counter unnecessary fears. Finally, the indirect role of the grandparents in extending support and help to young mothers has been reported to have enhanced mother's psychological well-being which in turn leads to effective parenting and family functioning (Cutrona & Troutman, 1986; Wilson,1984). In other words, grandparent's involvement in childrearing might promote strength and resilience of both mothers and children (Wilson, 1984; Kalu, 1992; Kivett, 1993; Grotberg, 1995).

7.3.4. Social Status and Behaviour Problems

Interestingly there was little relationship between social class (as measured in father's status) and child's outcomes. Mother's status did not significantly correlate with behavioural and emotional difficulties of her children. This finding is untypical since a number of studies have shown that socio-economic factors have substantial influence on childhood psychopathology (Wicks-Nelson & Israel, 1991). Although it has been previously assumed that social status and the traditional way of life are linked, it is very interesting to note that there were no substantial link between these two factors in the present study. Lower class families were not more likely to produce troubled children than high class families. Perhaps this idea while applicable to some Western countries has no support in the context of a traditional societies like the Sudan. In fact, in an earlier study, Rahim & Cederblad, (1984) reported the same findings when they examined parameters of child health and behaviour in a part of Khartoum. They suggested that socioeconomic changes perhaps have not yet altered the basic features of community life in the area of investigation.

7.3.5. The Role of Gender on Patterns of Behaviour Problems

Our results showed that parents ratings, revealed overall significant difference between boys and girls. However, the univariate tests showed that the difference between girls and boys was only significant as far as aggressiveness was concerned. The fact that teachers ratings did not show any effect of sex might suggest that boys' aggressiveness was only evident in the home rather than in the school environment. Exploring the possibility of sex differences in disciplinary practices on Sudanese children might give some insight into this finding. In chapter five (see section, 4.8) we said that a sex difference in the use of physical discipline did exist as parents had reported using physical punishment with boys more than girls. This might explain why teachers did not report similar effects of physical punishment in children's behaviour at school.

In general, our finding that boys in the home displayed aggressiveness significantly more than girls is consistent with other findings reported in the literature (Achenbach &

Edelbrock, 1981; McGee, et.al, 1984; Campbell, 1991). Similarly, our finding is also consistent with previous Sudanese studies (Baasher and Ibrahim, 1976; Cederblad, 1968; Rahim & Cederblad, 1984). However, generally speaking, in the present study, the role of gender in behavioural symptoms is less clear. This might be due to the differing methodological approaches. While our study is factor analytic, the earlier studies depended largely on general surveys of prevalence in the samples selected. In these studies sleep disturbance, feeding difficulties, and anxiety are more frequent in girls, aggressiveness and overactivity are notably present in boys (Baasher and Cederblad, 1968; Rahim & Cederblad, (1984).

Nevertheless, it is not clear whether Sudanese parents have used corporal punishment with boys because they are aggressive or visa versa. This point merits further investigation. However, in an attempt to look for some reasons why boys and not girls display aggressiveness, some explanations from Western literature might be suggestive. For instance, Eme (1979) reported that conflicts and disturbance in the home were consistently and considerably more associated with antisocial disorders in boys than in girls. Furthermore it might be possible that boys react more to stressful family life-events than girls (Emery & O'Leary, 1982; Zaslow & Hayes, 1986). It might also be suggested that the socialisation practices in the Sudanese society contribute to this finding. Values such as independence, social participation, defiance, are more demanded from boys than girls. In this connection it is found that such types of socilastion is likely be associated with externalising problems (Achenbach et.al, 1987; Ollendick, 1996).

7.3.6. Breast-feeding as Viewed by Sudanese Parents and Teachers

Although previous literature has suggested a strong link between traditional attitudes and the choice of breast-feeding, our results indicated that breast-feeding, as viewed by parents and teachers ratings, had no significant effect in determining any child behaviour problems in the present sample. While this finding is consistent with the results reported in chapter five (see section, 4.5- no association between family structure and the choice of breast-feeding), it departed from what was expected. It is possible that the predominant popularity of breast-feeding in the Sudanese society makes a poor discriminator of both parenting attitudes (as suggested before) and child behaviour problems.

7.3.7. The Role of Smacking (physical discipline) in Child Behaviour Problems.

Another finding of particular interest is that regarding physical discipline. As rated by parents, the care of physical discipline lead to developmental problems, emotional immaturity, emotional vulnerability, school problems, and sucking problems. However, teachers ratings showed no effect of physical punishment in causing children's behavioural and emotional difficulties. This finding would indicate that the effect of the use of physical

punishment was only implicated in home rather than in school environments. In this regard, it has been previously reported that the use of physical punishment as a disciplinary measure is widely practised by the Sudanese families (Grotberg & Badri, 1992). Perhaps in Sudanese primary schools smacking is less likely to be used. In any case, the impact of physical discipline in leading to some behaviour problems is not uncommon in the literature. For example it has been demonstrated that parents who depended entirely on physical punishment and threats were less likely to be successful in promoting competence, feeling of security (Grusec & Goodnow, 1994) and guilt over antisocial behaviour in their children (Hoffman, 1970). Moreover, boys rather than girls consider physical punishment by mothers less acceptable (Siegal & Cowen, 1984).

One more point perhaps merits an explanatory note. If physical punishment has been widely practised by the Sudanese families as a disciplinary measure (Grotberg & Badri, 1992) rooted in cultural and religious beliefs (Badri, 1979; see also, Straus, 1991), then how does it come to cause behaviour problems in children? Perhaps, the only possible answer is that the excessive use of physical punishment, which is unacceptable both religiously and socially, might have caused these negative behavioural outcomes in Sudanese children. It is of interest to note that the use of physical punishment in the present study was more associated with internalising rather than externalising behaviour.

7.3.8. The Impact of Religion on Behaviour Problems as Perceived by Sudanese Parents and Teachers.

The most striking finding of the present chapter is perhaps the impact of parental religiosity on patterns of behaviour problems as reported by parents and teachers. Although the strong effect of religion on shaping some aspects of child-rearing and demographic characteristics in various traditional and developing countries is well documented (Prothero, 1961; Atabani, 1985, Alwani, 1970; Badri, 1979), the present study suggest an independent effect of religion on childhood behaviour problems. Children who have parents with good religious observance are more likely to have no or fewer behavioural and emotional disturbances. If this finding is read in connection with the finding (see section, 4.9.3.) that parents' religiosity predicted a number of ecological factors of central significance to child development, it raises the question what is the significance of religion to children's mental health in the Sudan ?

First, it may be suggested that it is in this factor that the Sudan differs most from Western models. Secondly, the major influence religion has had on the norms that govern parenting and family functioning in the Sudanese society is crucial in determining children's outcomes. Parents who are religiously observant are more likely to be responsible in family life and with children offering a better chance of effective socialisation and healthy development. In this regard, Rahim & Cederblad, (1984) reported that factors such as

alienation, broken homes, alcohol abuse and crime in parents, which are known to be associated with psychological disturbances in children, are relatively rare in Sudan due to religious commitment.

Thirdly, religion helps the individual promote both his personal and social competencies by reinforcing his resistance to stressors and strengthening his will against social adversities and environmental difficulties (see, e.g., Koenig, 1993; Kark, et. al., 1996, Badri, 1979; Brown, Ndubuisi, & Gary, 1990) which in turn might help maintain his psychological equilibrium. Likewise parents' religious observance would likely be to positively influence their children's behaviour, and to placing them in greater possibility of having healthy parent-child interaction and good family functioning. There may seem several ways of this influence. One way suggests that religiously socialised children come from religiously oriented families which by virtue of religion have firm commitment to healthy development of children. This might imply that less religiously motivated Sudanese parents or families would not mind religious socialisation of their children and consequently putting them at higher risk for abnormal development. In this endeavour, in religiously conscientious communities, an individual's low religious commitment was found to be associated with feelings of low self-esteem (Krause, 1995). The second way suggests that children's religiosity indicates their placement in wider religious and social networks that provide emotional and social support and buffer against stressors and hardships. The third possibility proposes that children of religious parents enjoy clear rules and moral values to live by and benefit from established role models in their physical and social environment. Finally, children's religious involvement may provide an important avenue of social participation, in terms of providing a mechanism for self-expression, social support, and friendships (see, e.g., Brown, et al., 1990).

Fourth, at the societal level, Islam teaches that people should take care for the elderly and bestow kindness and gentle treatment upon children even if they are not theirs (Badri, 1979; Alwani, 1975). Islam also encourages people to be socially responsible, benevolent, and maintain good relationships, extend help and support for relatives, neighbours, and other socially disadvantaged people. If a certain society is living up to these teachings or standards, it would certainly be a healthy social environment for children to grow in. Moreover, children will not benefit only directly from these practices but also indirectly as a source for learning societal roles and social competencies through the assimilation of these values either by example or by direct induction. Adults in such social contexts would serve as important role models for children. This process will provide children with cognitive and social stimulation through the opportunity to observe social models and participate in diverse social relations (Salzinger. 1990).

Finally, if all these points are taken together, it can be concluded that the interplay of individual and collective attributes of religion in the Sudanese community promote

psychological stability in the family and the society at large. Furthermore, since there is evidence (in this study as well as in some others, e.g., Kark, et. al., 1996) that religion has protective features for adults and children's psychological well-being, we can argue that if research on resilient children elsewhere in the world (e.g., Grotberg, 1995) can provide pointers in this regard, it is likely that the influence of religion upon family ecology and modes of human development will be an important predictor.

7.3.9. In Summary

The present chapter attempted to explore in what ways the different socio-demographic characteristics and the family ecology in urban Sudan were related to patterns of behaviour problem displayed by Sudanese children. Generally, the findings affirmed the usefulness of examining the role of sociocultural factors in child psychopathology. Overall, the current results pointed out several findings that departed from Western ones, while a couple of findings were consistent with main stream literature.

For instance, in contrast with Western findings, firstly, large families did not necessarily lead to behaviour problems. Instead big family size in our sample mitigated symptoms of fidgeting, unsociability, and sleep problems. Secondly, lower class families were not more likely to produce troubled children than high class families. Thirdly, and more strikingly the differential effect of religion on childhood behaviour was evident. It was suggested that religion in the Sudan might function as a source of psychosocial stability. It is suggested that this factor represents the main point of departure from the Western model for studying child psychopathology. The possible contribution of religion to children's resilience deserves further exploration.

Consistent with some Western findings, the present study reiterates that active participation of grandparent in family processes promotes strength and resilience of both mothers and children. Surprisingly, our results indicated that breast-feeding, as viewed by parents and teachers ratings, had no significant effect in determining any child behaviour problems in the present sample. In addition, our findings confirmed the role of gender in childhood behaviour problems although this was only implicated in aggressive antisocial behaviour. Furthermore, in our sample boys displayed aggressiveness significantly more than girls. Finally, the use of physical punishment by Sudanese parents echoed its negative outcomes in children's behaviour. It is suggested that the excessive use of physical punishment by Sudanese parents might have been responsible for this effect.

CHAPTER EIGHT

CONCLUDING DISCUSSION

The purpose of this final chapter is to briefly summarise the main findings of the studies reported in this thesis and to consider the influence of the sociocultural context in the Sudan in the perception and development of childhood psychopathology.

8.1. Summary of Main Findings

Until recently, cultural issues in the perception and measurement of psychopathology received little attention due to the influence of the Universalist approach (Marsella & Kameoka, 1989). This Universalist position has been challenged by investigators who claim that culture can play a role in psychopathology by determining standards of normality and abnormality (Reid, 1995), by creating psyhosocial stressors that may reduce the individual's tolerance or by shaping personality in the context of specific environmental demands (Marsella & Scheuer, 1987). Some empirical evidence supports these criticisms as researchers have reported that psychological disorders may vary in rates, diagnostic patterns, and expression across different cultures (Reid, 1995).

It is of theoretical interest to have an idea about the similarities and differences in conceptualisation of human behaviour in the light of their culture. In this thesis, I have tried to highlight the situated nature of Western developmental psychology and so question its absolute relevance and applicability to the developing countries. Human behaviour in all parts of the world constitutes the subject-matter of the discipline not just those aspects of behaviour often dealt with in highly industrialised nations. This idea will help us broaden our concept of human experience and contribute to theories of psychology.

There is a practical need to understand and realise the influence of cultural differences in behaviour problems. This will encourage experts in the particular communities to develop their own instruments of assessment and treatment. The literature reviewed indicated that cultural factors influence most aspects of psychopathology by either determining standards of normality and abnormality, fostering and encouraging certain patterns of behaviour problems, or affecting adults' perceptions of those problems. Assessment efforts should account for these points.

The central point of my argument was that children behaviour problems may be better understood by considering the premises of their culture and its influence on normal development. The process of development itself produces problems of adjustment and adaptation that should be of general social concern, as well as having important implications for mental health. Childhood psychopathology cannot be judged independently of the sociocultural context in which behaviour is seen (Yule, 1981).

In response to the need to examine the specific cultural patterns and belief systems when dealing with behaviour problems, the present thesis carried out, as an initial step, a broad qualitative investigation in chapter 3. This involved a description and analysis of Sudanese adults views about beliefs and practices involved in normal and abnormal child development. Right across the various sectors of the Sudanese society represented in the study there was general unanimity that religious and cultural beliefs determine concepts of normal and abnormal development, influence patterns of child-care, and delineate routes of seeking treatment for behaviour problems. These views provided a firm foundation for the further quantitative exploration of these issues in the main study.

Epidemiologic in nature, the main study in the present thesis adopted the continuous-empirical tradition which yields dimensions and groupings of childhood behaviour problems. Typical measures in this type of study are behaviour rating scales completed by parents, teachers, or children themselves. The literature review presented in chapter 4 summarised characteristics of some examples of these rating scales and evaluated their applicability in non-Western countries. For cultural validity of assessment tools to be achieved, linguistic, conceptual, scale, and norm equivalence must be ensured in order to produce successful standardisation of instrument.

One central aim of the present thesis was to develop an assessment tool that would form a valid and reliable measure to identify and quantify Sudanese children's behavioural deviance. In turn it was recognised that this would facilitate comparison of the structures of behaviour problems obtained with those in other cultures. The findings revealed that the adapted versions of Conners' Parent and Teacher Rating Scales administered in a normative Sudanese sample had achieved satisfactory reliability in terms of the total item set of each scale. Final factor analyses yielded six and nine meaningful factor solution for teacher and parent questionnaires respectively. The factors derived in both instruments showed a good level of internal consistency. When compared with findings from other studies these factors revealed a number of similarities and differences in the components of the factors that emerged, their number, their order, and the names given to them. Nevertheless, the teacher version achieved better general agreement with previous studies than did the parent version. Teachers' ratings produced a clear distinction between externalising and internalising problems and within these bands, a distinction between hyperactivity and conduct problems and between anxiety and sadness/depression. However, the structure of parents' ratings did not produce such clear cut distinctions. For instance, there were no clear conduct problem or hyperactivity factor. However, generally speaking, the present findings provided further support for the use of the Conners Rating Scales across different cultures.

There are two inferences one can draw from the satisfactory validity and reliability the Conners' parent and teacher rating scales achieved in the Sudanese sample. First, our adapted versions of the Conners scales have attained satisfactory level of linguistic and

conceptual equivalence in the assessment of childhood psychopathology and hence they are cross-culturally valid. Second, in spite of certain cultural attributes specific to the Sudanese society that would presumably be expected to influence patterns and prevalence of behaviour problems, Sudanese adults judged similar patterns of child behaviour to those perceived in other societies. In addition, the moderate level of agreement between the Sudanese teachers' and parents' assessment over child behaviour problems would emphasise the potential benefit of information obtained from both sources and the need to integrate this in formulating preventive and therapeutic measures.

In line with an ecological approach this thesis attempted to examine the relationship between socio-demographic, family, and child characteristics embedded in the wider social system that would directly or indirectly influence the processes of development. This is because the ecological approach views children as growing up in a rather intricately related social environment which includes a range of interactions of subsystems. In addition, according to the ecological model childhood behaviour problems, a main focus of this thesis, reside in the interaction between a child and critical aspects of that child's surrounding physical and cultural environment (see, e.g., Apter, 1982). For example, the structural socio-demographic changes reflected in the distribution of family types, job opportunities, education and the interaction of these variables with family functioning and child-care styles were examined. Multiple interconnections between demographic, family factors, and child characteristics significantly operating were established. In many ways the findings were consistent with previous studies of the kind. Thus, adding further empirical support to ecological approaches to understanding of child development and behaviour problems.

The present thesis revealed, as suggested in the literature review, that in the Sudan as in similar non-western societies there were a range of life styles and approaches to child-care that differ from those prevalent in the West. Religious and cultural factors interacted with other demographic factors to determine the type of care that children experienced. Families with more modern Western attitudes tended to be more child centred in patterns of discipline, sex differences and preferences for early weaning. In addition, the present study affirmed that direct and indirect involvement of grandparents in child-care practices positively affect care-giving processes particularly feeding, weaning and other socialisation aspects. This trend in the Sudanese community appears to be consistent with other findings in both non-Western and Western societies. Apparently, all these findings emphasised that parents who enjoyed help and emotional support from family members and friends were much more able to maintain a secure and affectionate environment for their children than were those who remained to face difficulties by themselves. It was suggested that child-care and development in the Sudan has its most basic difference from Western child-care and development in the role played by religion

It has been assumed in the literature review that in non-Western societies modes of immigration, family arrangements, features of social status, and child-rearing practices within the family are linked with traditionality. While this trend holds true for most of our findings, however, there were some interesting findings that departed from this trend. First, there were no substantial links between social status and traditionality in this study. Lower class families were not more likely to be religious or to live in extended families than high class families. Secondly, while migration may lead to the breakdown of the traditional extended family, interestingly the ratio of extended families did not vary as a function of this factor, the thing which might suggest that extended living was equally popular across social groupings. Thirdly, there was no relationship between family structure and the choice of breast-feeding. It is possible that in a society like the Sudan the predominant popularity of breast-feeding makes it a poor discriminator of parenting attitudes. Finally, there were no significant predictors of levels of mother contact. It was suggested that the commitment of the Sudanese mothers to maintain a satisfactory level of contact with their children was so powerful that it resisted any other influences.

A third principal aim of the present thesis was to examine the role of Sudanese sociocultural factors in child psychopathology. The effect of different socio-demographic characteristics on patterns of Sudanese children's behaviour problem was explored. Although these effects were found to be significant, their magnitude was relatively small. In general, findings in the present study departed from Western ones in a number of ways. Big family size did not show any repercussion related to behaviour problems. Instead big family size in our sample soothed symptoms of fidgeting, unsociability and sleep problems. Furthermore, lower class families were not more likely to produce troubled children than high class families. In addition, and more significantly, the differential effect of parental religiosity on childhood behaviour problems was enormous.

However, in line with Western findings, the present thesis restated the positive effect of grandparents' participation in family processes bringing about good children's behavioural outcome. Moreover, the findings revealed that breast-feeding had no significant effect in determining child behaviour problems. In addition, the findings also confirmed the role of gender in childhood behaviour problems although this was only evident in aggressive antisocial behaviour. Finally, the use of corporal punishment by Sudanese parents mirrored its negative outcomes in children's behaviour often reported in Western societies.

8.2. Limitations of the Present Research

The lack of a valid and reliable measure for religiosity in the Sudan made it necessary to include various items in the questionnaire to estimate religiosity as an independent variable. While self-report measures are methodologically appealing, I feel ideally an objective

measure should be used in such an investigation. It is possible that mothers' and parents' reports were affected by some systematic bias in reporting demographic information, child-care styles, and child behaviour. Differences in reporting might be due to variations in education, literacy or the general awareness of this study.

Although the qualitative study reported in this thesis appeared to be useful and informative in shedding light on beliefs underlying the concepts of child development and strategies of child-care in the Sudan, a number of limitations were also conceived. First, the context in which data was collected might have shaped the comments received. Rather than communicating his/her attitudes, the interviewee may be influenced by the need for social desirability. For example, a Sufi, a teacher or a clinician might be influenced by people's perceptions to his role in the society. Second, the background characteristics of the interviewer, his education and social status, his attitudes to the respondents' category, his understanding to the relevant cultural and religious beliefs might have affected the responses obtained. In particular, the issue of religious and cultural identity. For instance, the respondents in our sample made frequent reference to religion and culture in defining the concepts and practices of normal and abnormal development. This frequent reference could be a genuine reflection on the issues at stake but also could be seen as asserting their religious and cultural identity in the face of Western values invading their society.

8.3. Methodological and Conceptual Issues Encountered in the Research Process

Conceptual issues

The present research was influenced by the argument that Psychology has to admit the overall cultural and socio-economic structure within which concepts of normal and abnormal behaviour exist. For instance, the developing countries have to be recognised as having their own cultural orientation as a basis for psychological practices (see e.g. Triandis & Brislin, 1984; Wagner, 1986; Reigel, 1973; Marsella & Kameoka, 1989).

Themes such as cultural variability and cultural sensitivity related to child behaviour problems assessment must be thoroughly addressed (see Bird, 1996). Psychosocial variables are of crucial importance in children's growth and maturation, and it is essential that better ways of assessing and classifying characteristics of family interaction, societal influence, and patterns of cultural change be developed. Moreover, there are various diagnostic questions that require international collaborative research. For example, the hyperkynetic syndrome is diagnosed much more frequently in some parts of the world than in others, and it is pertinent to ask whether this major variation reflects differences in the incidence of the disorder (Law, 1985).

It is crucial for a researcher to culturally validate his work in order to achieve scientific authenticity. At the same time it is important to recognise the uniqueness of the sociocultural situation. Measures must be tailored to local circumstances and levels of resources available.

A major issue in the present research was to validate an assessment tool which was intended to provide a common ground upon which we can start to assess, expand, or make comparisons of theories and concepts. Seeking to satisfy the issue of cultural validity and at the same time looking for avenues of scientific communicability will create some sort of tension. For example, keeping the balance between definitions of behaviour disorder as primarily developed in the West and being sensitive to local cultural demands poses a methodological dilemma.

Practical issues:

The concept of social class emerged as a practical problem in defining the sample of the study. While the concept is clear and subject to reliable classification systems (e.g., Hollingshead, 1975) in the West, no such systems exist in the developing countries. Moreover, it has a doubtful value in the Sudan. However, when educational level and occupation were combined in one factor they yielded a reasonably acceptable measure of social index (see e.g., Lambert, et.al., 1992).

The question of conceptual and linguistic equivalence: Due to cultural variation in the perception and description of a behaviour problem, difficulties in translation and back translation of items were encountered. Bird (1996) urges that the process of translation and back translation should not be purely mechanical, but should be qualitative and insightful.

The illiteracy rate in the sample studied was not negligible. In case the respondent was illiterate, the research workers were instructed and trained to read questions for the subject.

8.4. Implications of the Present Findings and Suggestions for Future Research

The second major role of this concluding chapter is to consider the theoretical, practical, and research implications of the studies carried out in this thesis.

8.4.1. Significance of the Study of Developmental Psychopathology in the Sudan

The study of childhood behaviour problems in the Sudan fulfils at least two important functions in developmental psychopathology. First it facilitates mapping out the discipline's progress in the country, allowing for the pinpointing of those aspects of childhood that may have been neglected in the past, but which are beginning to emerge as important for developmental study. Secondly, it facilitates an understanding of human development within a specific culture or country, highlighting aspects of change and stability in childhood experience over time. In this context, it is important to note that childhood in any culture has specific characteristics besides other biological and human characteristics that are universally shared with other children. In an analysis of developmental patterns of childhood, culture can be a dynamic concept that substantially enriches the understanding of

childhood in a different sciocultural contexts (see, e.g., Marsella & Kameoka, 1989; Liddell et. al, 1991).

It is also noteworthy that historical studies of childhood for Western cultures have focused largely on patterns of change (Demos, 1983). However, in non-Western cultures that undergoing rapid processes of transition, like the Sudan, it seems equally important to examine the processes of *stability* in childrearing and socialisation, as many features of childrearing may persist despite periods of intensive mobility and adaptation (Liddell, et. al., 1991; Rahim & Cederblad, 1984). Because of their enduring nature, the more stable aspects of childrearing and family relations may be the ones that exert the strongest influence on children's development. Identification of these aspects is highly meaningful to mental health in the Sudan as well as satisfying a quest in developmental psychopathology to increase our knowledge of protective factors in children's lives (Wenar, 1994).

Despite the fact that socio-economic change and Westernisation has been a primary focus in the recent literature on children of the developing countries (Law, 1985), it is this thesis' contention that the interpretation of contemporary psychopathogy could be fruitfully informed by a sociocultural analysis, which may often (as in the case of religion, extended family, and grandparent's involvement) highlight the enduring nature of certain childhood practices, and thus set their significance in the face of current socio-political events.

8.4.2. Religion as a Pervasive Theme Across the Qualitative and Quantitative Studies

The reader would probably have observed that the most pervasive theme characterising the findings of the present thesis was the structural and functional significance of religion in normal and abnormal development of children in the Sudan. The findings highlighted the significance of religion to children's mental health in the Sudan in terms of the following services it was found to offer or facilitate.

- Promoting parental responsibility and parenting efficacy.
- Religion helps the individual promote both his personal and social competencies.
- At societal level, Islam encourages filial piety, social conformity, and social cohesion.
- Religion serves as an element of psychological stability in the family and the society at large.

One fundamental concept might help clarify the contribution of religion to child mental health in the Sudan. That in Islam, the family is basically regarded as a religious and social institution where socialisation and value-orientation of children remain a major responsibility (Ahmad, 1976). The ideal family provides psycho-emotional satisfaction (love, kindness and attachment) for children in particular. Moreover, Islam has always

been described as more than a religion; as a complete and comprehensive way of living. Its ideas and practices not only influence the individual's spiritual life but also his cognitive, emotional, social, and economic activities. In addition, the significance of religion as a powerful element in people's culture shaping their human experience, beliefs, and values has been documented (see, Badri, 1979; Baasher, 1982; Krause, 1995; Rahim & Cederblad, 1984; Turner et al.).

8.4.3. Religion as a Bedrock for social Integration in the Sudanese Society

Another valuable protective characteristic of religion in the Sudanese society is placing significant emphasis on the concepts and practices of social support and social integration (see, e.g., Badri, 1979, 1972; Baasher, 1976; Ahmad, 1976). Regarding and maintaining a good level of inter-social relations is a primary motivator for the individual`s concern for others, paving the way for social cohesion. This is practically demonstrated in terms of emotional, financial, and social support to family members and other communal ties. In relation to this tradition, we might speculate that social relatedness and social support serve a number of psychological functions that can affect the socio-emotional development of children. In times of psychological need, it has been suggested that social support networks can provide emotional assistance and informal guidance (Hobbs, 1982). Research has provided empirical evidence (Holahan et. al, 1983; Wilson, 1984; Cohen & Wills, 1985) highlighting the healthy effects of social support and social integration in alleviating stressful life situations. This would indicate that psychological distress is believed to be greatest for individuals who are experiencing both low social support and a high level of stressful life situations. The protective significance of interactive networks in children's social ecology to their mental health is recently demonstrated. For instance, Svedhem (1994) developed and tested a theoretical model to understand the influence of social networks on children's behaviour problems in schools. The extent to which the persons in these groups know one another was of vital importance in this regard. Svedhem found that children who had a social network that maintained good levels of contacts and interaction between its members, showed better adaptive behaviour while children with behaviour problems came from fragmented social networks. Subsequently, he suggested a therapeutic model devised to increase the contact and communication between the various groups in the network. In the light of the above-cited findings, the reader might sense the robust protective role of religion for the child, for the family, and for the society. However, in spite of the fact that the positive contribution of religion to mental health has long been suspected, recently the psychology of religion has provided empirical support for this idea encouraging psychiatry to accommodate this evidence into theory and practice (Neeleman & Persaud, 1995; Kroll, 1995).

8.4.4. Religiosity and Child's development of Self-esteem

It was previously said that religiosity increases adults' self-esteem (see section 7.1.2). This would involve positive reflections on the quality of interpersonal and family functioning which in turn might enhance child-parent interaction. Moreover, religious commitment on the part of parents or families is likely to materialise in enhancing home environment, which contains parental warmth, respectful treatment towards the child and clearly defined roles. It is generally believed that parents are in a strong position to influence the child's emotional, social, physical, and cognitive development. The process of developing the child's self-esteem is no exception. It first begins at home and parent-child relationship is considered the cornerstone in this process. Many investigators have stressed the significance of parents in the development of self-esteem of their children (see Wenar, 1994; Oosterwegel, 1993). In such environments children are certainly placed in a better position to develop positive self-esteem. The strong relationship between child self-esteem and his/her intrapersonal and social competencies is well documented (Wenar, 1994; Bee, 1989). However, while this interpretation tentatively taps this point, rigorous investigation of the relationship between religiosity and child's development of self esteem in which children themselves are the actual participants is important.

8.4.5. Religiosity and Marital Adjustment

The positive relationship between religiosity and marital stability and adjustment has been documented (Shrum, 1980). Moreover, religiosity more than socio-economic rewards and social desirability was found to be strongly associated with marital adjustment (Filsinger & Wilson, 1984). Accordingly, Filsinger and Wilson suggested that religion might be a source of strength and vitality for a relationship. Marital stability and strong parental relationships in turn will reduce the possibility of family turmoil and discord which are associated with higher levels of childhood psychopathology (Emery, 1982; Rutter, 1987). In addition family adjustment and positive parental relationships will enhance the quality of maternal care (Belsky, 1988), that positively influences children's psychological adjustment.

8.4.6. Theoretical and Practical Implications of the Impact of Religion in the Sudanese Society

If increased self-understanding is regarded as inherently good and conducive to good psychological health for the individual (Hobbs, 1962), then the following analogy might be true for society, as culture is often seen as a dynamic entity. If a specific culture comes to understand itself by realising its inherent referents- attitudes, values, beliefs, expectations and consciousness, it might be said that 'cultural' insight is, then, achieved which in turn

leads to good psychosocial stability. For instance, in the present thesis it was found that religion, a central component of the Sudanese culture, constitutes a mix of protective factors that mitigate adverse family functioning and promote children's psychological health. If researchers, community leaders, public policy makers build on this finding to generate and design religiously oriented social planning, educational programs, mental health preventive and intervention measures, this would most probably result in an increased psychological and social stability.

Today, perhaps as never before, Sudanese people are at a crossroad regarding the welfare of their children. Factors associated with behaviour problems are complex and profound in their effect on individuals, families, and societies. However, if these problems are left unaddressed and unresolved, human and economic costs will be far-reaching and children will undoubtedly become the victims of psychological, developmental and behavioural problems. Much useful prevention can be done by promoting the healthy functioning of families, by the maintenance of family cohesion, by improving day-care facilities, by ensuring that schools foster psychosocial development, and by providing training so that all who deal with children be aware of the psychosocial effects of religion. Such programs will not only help reconcile the society with its cultural 'Self' but also mitigate the risk of cultural alienation that might lead to social and psychological disintegration. In this respect, modern trends in family therapy are deemed effective when they are sensitive to the families cultural heritage and attuned to the unique interactional patterns, attitudes, feelings, and behaviour of each family within the wider cultural context (Kaslow, Celano, & Dreelin, 1995). Family therapists are, therefore, challenged to facilitate a family's efforts to reconnect with their cultural heritage to preserve a sense of belonging and identity (Kaslow, et. al, 1995). In brief, Sudanese people need to combine, in harmony, the best in their culture with the best in the scientific and educational establishments of the West in order to achieve the desired goal of good health for their children.

8.4.7. Suggestions for Future Research

For logistic reasons the sample of the present study was taken from an urban community in central Sudan. For sound reflection of the various living modes in different parts of the country where cultural diversity is evident, macro-and micro-level empirical investigations on family processes in relation to childhood behaviour problems should be carried out. These investigations should include not only the changing aspects of families but also those variables that account for stability in the society. For example, the protective role of religion on family functioning and promoting resilience in children must closely be examined. The role of social and interpersonal networks and their impact in fostering psychological support, family cohesion, and social stability also invites closer examination.

The emerging trends and patterns in family structures should be examined with special reference to the sociocultural context of the Sudanese society. For example, the protective role of religion in nuclear families stimulates further investigation.

While the role of grandparents as an audience of development is suggestive, it is also quite likely that they hold different ideas about parenting and child-care that would not please the parents and hence might generate some sort of tension. For instance, grandparents might take a different stance regarding disciplinary practices. So the particular role that parents play as an audience for parenting and a source for advice needs further investigation.

Looking at the impact of child's characteristics and behaviour problems on parental efficacy and self-esteem is an important research question in this area. Which particular behaviours or pattern of deviance contribute to parental levels of mental health. Moreover, precise measures are needed to assess differences in family functioning and to evaluate the contributions of these differences to specific patterns of children's behaviour problems. In addition a future detailed investigation on parents' ratings of causes of psychological disturbance will complement the present research.

While the effect of the use of physical discipline by Sudanese parents was found to be consistent with previous findings in causing behaviour problems, the present finding indicated much more association with internalising rather than externalising behaviour. The difference in this pattern manifested by Sudanese children in response to physical discipline might stimulate further investigation.

The findings of the present study revealed that teachers had perceived the significance of religion in determining children's school behaviour. In this connection one may raise the question that in what ways does this factor influence children's behaviour at school and what correlation does it have with educational attainment and academic performance?

Finally, since religion is conceived of as an integral part of the Sudanese culture and has been shown in this research to play a significant role in child development and child psychopathology, accurate measurement of its influence on the Sudanese individual is vitally important. Particularly, there is a pressing need for developing a Sudanese religiosity index which measures religiosity for both adults and children.

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Appendices

Appendix 1-A

Interviews About Adults' Views Of Normal & Abnormal Development In The Sudan

Normal Development

[1] Would you be able to tell me how a person develops in a healthy manner?

[2] If you can, try to describe the various stages of development that you have come through.

[3] From your own experience do you see that there are certain stages of development that require special attention?

[4] At what age do you think a person must get married?

[5] Whom do you think that they should live together in one family? And why?

[6] As a mother: can you describe how did you manage to rear your children

[7] To what extend do you think that you are responsible for their healthy development

[8] Do you have any ideas about feeding and weaning of children?

[9] Whom do you prefer your child to play with and why?

[10] In general, what advice can you give for the best ways of rearing a child?

[11] Try to describe the good qualities you would like to see in your child's? Why?

Abnormal Development

[12] There are certain bad [undesirable] behaviours that might be seen in children, would you mention those you would not like to see in your child's behaviour?

[13] To what extend do these undesirable behaviours upset you?

[14] Are you able to observe any kind of anxiety or disorder showed by your children?

[15] Try to guess what are the causes of these disturbances

[16] In your opinion what are the kind of the most serious mental problems that might affect the child?

[17] What will you do if you see one or more of these serious problems in your child's behaviour?

[18] If your child had a problem whom would you seek help from? Why?

Sex Differences

[19] Consider that you have both a boy and a girl. Do you feel that they should be treated or brought up the same way? In practice do you encourage or discourage sex differences in

children?

Culture & Religion

[20] To what extent do you think that your culture plays a role in the way children are brought up in?

[21] Can you tell me any thing you feel negative or positive about the role of religion in bringing up children? In what way do you thing religion might play a role in the development of children.

[22] How do you think your child must grow up?

[23] In this area there are certain places for children to join in order to have some education or training. Where will you be happy to take your children to? If he or she had joined one of these places would you let her/him to go to other institutions?

Appendix I-B:

بسم الله الرحمن الرحيم

إستبيان عن

رؤية السودانيين لنمو الأطفال وصحتهم النفسية

النمو السوي:

١- ممكن تحدثني عن النمو السوي الصحيح للانسان.

٢- واذا كان بامكانك ذلك فهل ياتري ماهي المراحل التي يمر بها الانسان في نموه.

٣- من خلال تجربتك الشخصيه تفتكر هناك مراحل بعينها تتطلب مزيدا من الانتباه من الوالدين والمربين.

٤- في اي عمر أو سن مناسبة تري ان يتزوج الانسان في السودان.

٥- من هم أفراد الاسرة الذين يجب ان يعيشوا تحت سقف واحد، مارأيك؟ ولماذا ؟

٦- من تجربتك الشخصيه كأم ممكن تصفي لنا كيف كنت تقومين برعاية طفلك وتربيته.

٧- الي أي مدي تعتيري نفسك مسئوله عن النمو الصحيح لطفلك؟

٨- عندك اي فكرة او رؤية خاصة في تغذية طفلك او فطامه.

٩- من هم الناس الذين تفضل أن يلعب معهم، ولماذا ؟

١٠- بصورة عامة ماهي النصايح التي يمكن ان تقدميها للآخرين حول أحسن الطرق في رعاية الأطفال وتربيتهم.

١١- ممكن تحاولي وصف الصفات الجيدة التي ترغب في ان تكون في طفلك.

النمو غير الطبيعي:

١٢- هناك بعض الصفات غير مرغوبه في الطفل ولايحبها الناس في الاطفال، ممكن تذكري لنا تلك الصفات أو بعضها مانحب رؤيتها في رؤيتها في طفلك.

١٣- الي اي مدي تزعجك هذه الصفات غير الحميدة اذا كان في طفلك.

١٤- هل بمقدورك ان تلاحظ اي اضطراب نفسي أو قلق غير طبيعي اذا حدث في

سلوك طفلك.

١٥- حاول ان تقدر ماهي الاسباب لهذه الاضطرابات اذا حصلت!

١٦- في رأيك ماهي اشد أنواع الاضطرابات النفسية والسلوكيةالتي تعتري الاطفال بصفة عامة.

١٧. كيف تتصرف اذا حدث ان أصاب طفلك واحد أو كثر من هذه المشاكل النفسية.

١٨- لو حدث ان طفلك يعاني من هذه الاضطرابات النفسيه أو السلوكية ممن تحاول ان تجد العلاج والمساعدة في شفائة.

الفروق النوعية :

١٩. اذا افترضنا ان لديك بنت/ولد في وقت واحد في مرحلة الطفولة، هل تفتكر ان معاملتهم وتربيتهم تكون نفس الشئ ام هناك اختلاف؟ وفي واقع الحال هل تشجع مراعاة الفروف الجنسية (بنت/ولد) بين الاطفال؟

الثقافة والدين:

٢٠- الي اي مدي تفتكر ان المحيط الثقافي أو الاجتماعي يؤثر في تربية الاطفال.

٢١- ممكن تحدثني عن شئ ايجابي أو سلبي تراه أو تشعر أنه من تأثير الدين في تربية الأطفال! وماهي الطرق التي في رأيك ان الدين يمكن يساعد بها في نمو الاطفال و تربيته

٢٢- كيف تصورك لتنشئه ابنك او بنتك.

٢٣- في هذا المكان الذي تسكن فيه، هناك مؤسسات متنوعة لتعليم الاطفال وتدريبهم، أي هذه المؤسسات تختار لتعليم طفلك، واذا اخترت له واحدة من هذه هل تدعه أو تدعها تذهب للاخريات.

Appendix 2-A:

Parent's Questionnaire

Name of Child : _____ **Date:** _____

Your Name: _____ **Relationship :** _____

Please answer this section as accurately as you can about parents, family and child-care patterns. Read each item carefully and decide the appropriate answer and indicate that in the given box.

General information

1- Child age [ ] Sex [ ]

2. Residence: [ ] Since

3. Number of children in the family: [ ]

4. Who are the member of your family: [ ]

5. Father's age: [ ] Mother's age [ ]

6. Father's level of education: [ ]

7. Mother's level of education: [ ]

8-Do parents do their daily prayers and generally observe their religious teachings:
a-Never or not regularly
b- Sometimes
c- They usually do

9. Father's occupation: [a/b/c/d/e/f]

a. Worker b. Official.
c. Professional d. Businessman.
e. Military forces f. Unspecified.

10. Is the mother employed? [Yes/ No]

11. If she is employed, what is her job [a/b/c/d]

a. Worker b. Official.
c. Professional d. Teacher.

12. a. The family annual income: [ ]

b. Which of the following items do you have [i/ii/iii/iv/v/vi]

i. Radio. ii. Television.
iii. Video. . v. Refrigerator.
vi. Any other electrical machine. .....vi. Car.

13. How long time do you spend with your child

14. How many hours per day does your child spend with his/her grandparents

15. Does your child go to the kindergarten? a/b/c
a. Usually. b. Sometimes. c. Never.

16. Do you often use beating to discipline your child? a/b/c
a. Continuously. b. Sometimes. c. Never.

17. When your child was a baby, did you feed him by: a/b/c
a. Breast. b. Bottle. c. Both.

18. After how long have you weaned your child:

19. How long did it take you to toilet-train your child:

20. At what age did your child learn to speak clearly?

Instructions : Listed below are items concerning children's behaviour or the problems they sometimes have. Read each item carefully and decide how much you think your child has been bothered by this problem during the past month -

NOT ALL, JUST LITTLE, PRETTY MUCH, or VERY MUCH
Indicate your choice by placing a check mark in the appropriate column to the right of each item.

	Not at all	Just a little	Pretty much	Very much

Eating problems:

21. Difficult to please by the type of food.

22. Will not eat enough.

23. Over eating.

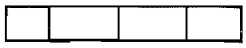
24 Running around while eating.

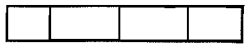
25. Eats earth and mud.

Problems of sleep:

26. Has much movement while sleeping

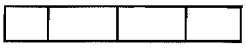
27. Has Nightmares

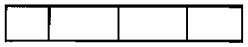
28. Awakens at night. 

29. Cannot easily fall asleep. 

Fears:

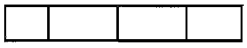
30. Afraid of new situation. 

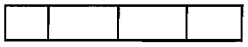
31. Afraid of strangers 

32. Afraid of being alone. 

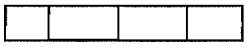
33. Cannot bear the absence of his mother. 

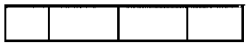
34. Worries about illness and death. 

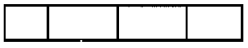
35. Afraid of darkness. 

36 Afraid when told about thieves. 

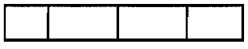
Muscular Tension:

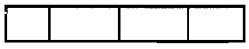
37. Gets stiff and rigid 

38. Has twitches, jerks. 

39. Shakes 

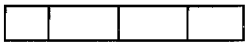
Speech problems:

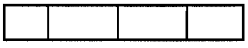
40. Stutters or stammering 

41 Has lisping 

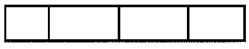
42. Difficult to understand. 

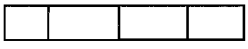
Wetting:

43. Wets bed. 

44. Runs to lavatory constantly 

Bowel problems:

45. Soiling himself 

46. Finds difficulty in bowel movement 

Complains of the following symptoms even though doctor can find nothing wrong:

47. Headaches.

48. stomach-aches

49 vomiting.

50 Aches and pains.

51. Diarrhoea

52 Allergy

Problems of sucking

53. Sucks thumb or finger.

54 Bites nails.

55. Chews on clothes, or papers.

56. Collects things such as hair, old clothes ect.

Immaturity:

57. Dose not behave at his age

58. Cries easily.

59. Wants help in doing things he should do alone

60. Clings to parents.

61. Baby talk.

62 Selfish

Trouble with feelings:

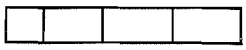
63. Keeps angry to himself.

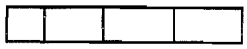
64. Let himself get pushed around by other children

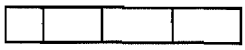
65. Unhappy.

66. Feels hurt by other people.

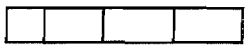
Overasserts himself:

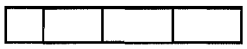
67. Bullying. 

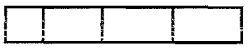
68. Bragging and boasting. 

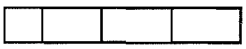
69. Answers back to adults 

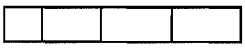
Problems making friends:

70. Shy. 

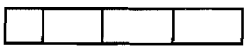
71. Afraid they do not like him. 

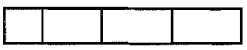
72. Feeling easily hurt- embarrassed. 

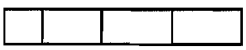
73. Has no friends. 

74. Self- centred. 

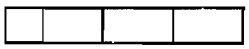
Problems with brothers and sisters:

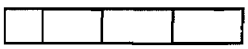
75. Feels cheated by brothers and sisters 

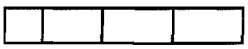
76. Is mean. 

77. Fights and quarrel constantly. 

Problems keeping friends:

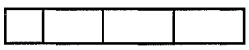
78. Disturbs others children. 

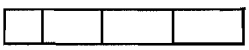
79. Wants to run and control things. 

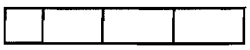
80. Verbally aggressive. 

81. Teases other children. 

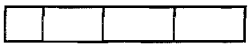
Restless-anxious:

82. Restless or overactive. 

83. Excitable-impulsive. 

84. Inattentive- fails to finish things or pay attention 

Temper:

85. Has temper outbursts, explosive and unpredictable Behaviour. 

86. Throws himself around. 

87. Throws and breaks things

88. Moody.

Sex:

89. Likes to be naked in front of people.

90. Involves with sex play with others.

91. Inquires about sex differences.

92. Does not care if he/she is a boy or girl

93. Does not like mixing with other sex.

Problems in school:

94. Is not learning.

95. Dose not like to go to school.

96. Is afraid to go to school.

97. Truants.

98. Does not obey school rules.

99. Does not like teachers.

100. Afraid of his class males

101. School is far away from home.

Lying:

102. Denies having done wrong.

103. Blames others for his mistakes.

104. Tells stories that did not happen.

105. Does not like to tell about other children's mistakes.

Stealing:

106. Steals from parents.

107. Steals from school.

108. Steals from stores and other places

Fire-setting:

109. Sets fires.

Cruel to animal and plants:

110. Cruels to animals and birds.

111. Likes destroying flowers, plants or small trees.

Perfectionism:

112. Likes everything must be just so.

113. Likes thing must be done same way every time

114. Sets goals too high to achieve.

Hygiene:

115. Does not remain clean throughout the day.

116. Plays with mud and rubbish.

117. Tears off his clothes

118. Untidy

119. Refuses to wash himself.

Religiosity:

120. Likes to learn some of the holy Qura'n.

121. Does not like doing prayer.

122. Does not care about religious stories.

Relation with grandparents:

123. Does not like sitting with grandparents.

124. Does not like visiting grandparents.

125. Does not like haboba

Additional problems:

126. Inattentive, easily distracted.

127. Constantly fidgeting.

128. Cannot be left alone. ☐☐☐☐

129. Always wants to climb trees ☐☐☐☐

130. Rises quite early before anyone in the family ☐☐☐☐

131. Runs around between mouthful at meals. ☐☐☐☐

132. Demands must be met immediately- easily frustrated. ☐☐☐☐

133. Does not bear teasing or mocking ☐☐☐☐

134. Untidy. ☐☐☐☐

135. Cries often and easily ☐☐☐☐

136. Unable to stop repetitive activity (tics ☐☐☐☐

137. Mood changes quickly and drastically. ☐☐☐☐

138. Poorly aware of surroundings and time of the day ☐☐☐☐

139. Throws stones or interrupts passers-by or neighbours ☐☐☐☐

140. Does not care about other's feeling. ☐☐☐☐

Appendix 2-B:

بسم الله الرحمن الرحيم

استبيان عن سلوك الاطفال بالمنزل ومحيطه

السادة الاباء و الأمهات المحترمين:

أولا: الرجاء ملأ البيانات الأولية (الأسئلة من ١-٢٠)

١- إسم الطفل.....نوعه... .....عمره.....

٢- تسكن في الحي منذ عام.....

٣- عدد الأطفال في الأسرة.....

٤- من هم أراد أسرتك.....

٥- عمر الوالد.....عمر الوالدة.....

٦- مستوي تعليم الأب.....

٧- مستوي تعليم الأم.....

٨- هل يحافظ الوالدين علي صلواتهم: لا ( ) لحد ما ( ) ؛ نعم ( )

٩- مهنة الوالد.....

١٠- هل الأم عاملة.....

١١- اذا كانت عاملة ما هي مهنتها.

١٢- كم تقدر مستوي دخل الأسرة

١٣- كم من الزمن (الساعات) تمضي الأم خلال اليوم مع الطفل.....

١٤- كم من الزمن (الساعات) يمضي الطفل مع حبوبته خلال اليوم

١٥- هل طفلك يمشي الروضة **دائما** ( ) **أحيانا** ( ) **لا** ( )

١٦- هل بتجلدي طفلك علشان تأديبه **دائما** ( ) **أحيانا** ( ) **لا** ( )

١٧- عندما كان طفلك رضيعا؛ كنت بترضعيه عن طريق

الرضاعة الطبيعية ( ) **البزازة** ( ) **الإثنين معا** ( )

١٨- بعد كم من الزمن فطمتي طفلك .....

١٩- كم من الزمن أخذ معاك علشان تعلمي طفلك أن يتبول بمفرده .....

٢٠- في أي عمر أصبح طفلك يتكلم جيدا .....

ثانيا:

ادناه وصف لسلسة من المظاهر السلوكية التي يمكن ملاحظتها في الاطفال ؛ بعد كل وصف هناك أربعة خيارات؛ لا؛ لحد ما؛ غالبا؛ كثيرا. الرجاء وضع علامة علي الخيار المناسب الذي يصف سلوك طفلك خلال الشهر الماضي.

الملاحظات	لا	لحد ما	غالبا	كثيرا
متاعب الاكل				
٢١- يصعب ارضاؤه بتنوع الاكل	( )	( )	( )	( )
٢٢- لا يأكل كفايه - آكله بسيط	( )	( )	( )	( )
٢٣- يأكل اكثر عن اللازم - يأكل علي عينه	( )	( )	( )	( )
٢٤- يتحرك كثيرا ويجري اثناء تناول الطعام	( )	( )	( )	( )
٢٥- يأكل الطين والتراب	( )	( )	( )	( )
متاعب في النوم:				
٢٦- قلق - يتحرك ويتقلب كثيرا في النوم	( )	( )	( )	( )
٢٧- تنتابه كوابيس مزعجه	( )	( )	( )	( )
٢٨- يصحي بالليل كثيرا	( )	( )	( )	( )
٢٩- لاينام بسهوله يظل ساهرا فتره طويله	( )	( )	( )	( )
المخاوف:				
٣٠- يخاف من المواقف الجديدة	( )	( )	( )	( )
٣١- يخاف من الناس الاغراب	( )	( )	( )	( )
٣٢- يخاف من الوحدة- اذا كان				

في البيت لمفرده	( )	( )	( )	( )
٣٣- لايتحمل غياب والدته عنه	( )	( )	( )	( )
٣٤- منشغل دائما بانه مريض ويخاف ان يموت	( )	( )	( )	( )
٣٥- يخاف من الظلام				
٣٦- يخاف من الحكاوى عن الحراميه او سيرتهم	( )	( )	( )	( )
التوتر العصبي:				
٣٧- يكون عنيد ومتصلب	( )	( )	( )	( )
٣٨- عنده اضطراب حركي	( )	( )	( )	( )
٣٩- يرج احيانا ويهتز	( )	( )	( )	( )
متاعب في الكلام:				
٤٠- عنده تمتمه في الكلام	( )	( )	( )	( )
٤١- الثغ- يقلب الحروف	( )	( )	( )	( )
٤٢- يجد صعوبه في فهم الكلام	( )	( )	( )	( )
تبلل الفراش:				
٤٣- يتبول علي فراشه	( )	( )	( )	( )
٤٤- يمشي المستراح باستمرار	( )	( )	( )	( )
٤٥- يتبرز احيانا في ملابسه	( )	( )	( )	( )
٤٦- يجد صعوبه شديده في الاخراج	( )	( )	( )	( )

يشكو من الاعراض التالية رغما عن ان الطبيب لم يجد اي مبرر لذلك:

٤٧- يحس بصداع مستمر	( )	( )	( )	( )
٤٨- يحس بالام في البطن	( )	( )	( )	( )

٤٩- يطرش ويستفرغ كثيرا	( )	( )	( )	( )
٥٠- يحس باوجاع والام في جسمه	( )	( )	( )	( )
٥١- يشكو من الاسهال	( )	( )	( )	( )
٥٢- عندة حساسيه زي حبوب في الجلد	( )	( )	( )	( )
او في الجهاز التنفسي	( )	( )	( )	( )

متاعب مص:

٥٣- يمص اصابعه باستمرار	( )	( )	( )	( )
٥٤- بقضم اظافره	( )	( )	( )	( )
٥٥- يمضغ ملابسه او يلوك الورق	( )	( )	( )	( )
٥٦- يلقط الشعر المتساقط او المزق القديمة	( )	( )	( )	( )

عدم النضج:

٥٧- لايتصرف كما ينبغي في سنه	( )	( )	( )	( )
٥٨- يبكي بسهوله	( )	( )	( )	( )
٥٩- يطلب المساعدة والمعاونه في الاشياء				
المفروض يعملها بنفسه	( )	( )	( )	( )
٦٠- دائما يلتصق بوالديه	( )	( )	( )	( )
٦١- ينيص ويطنطن طوالي	( )	( )	( )	( )
٦٢- اناني	( )	( )	( )	( )

متاعب وجدانية:

٦٣- دائما زعلان من نفسه	( )	( )	( )	( )
٦٤- يدع الاطفال الاخرين يرمونه ويدفعونه	( )	( )	( )	( )
٦٥- يشعر انه غير سعيد	( )	( )	( )	( )
٦٦- يشعر ان الآخرين يؤذونه	( )	( )	( )	( )

الشعور الزائد بالتأكيد:

٦٧- يستأسد علي الاطفال الآخرين ويحتقرهم( ) ( ) ( ) ( )

٦٨- يتفاخر بنفسه ( ) ( ) ( ) ( )

٦٩-يرد علي الناس الكبار بجرأه وعدم احترام( ) ( ) ( ) ( )

متاعب في تكوين الاصدقاء:

٧٠- خجول مع الناس ( ) ( ) ( ) ( )

٧١- يخاف من الناس انه ما يحبونه ( ) ( ) ( ) ( )

٧٢- مشاعره تنجرح بسهوله ويحس بالحرج ( ) ( ) ( ) ( )

٧٣- ماعنده اصدقاء ( ) ( ) ( ) ( )

٧٤- مهتم بنفسه فقط ( ) ( ) ( ) ( )

متاعب مع اخوته واخواته:

٧٥- يشعر بانه مخذوع ( ) ( ) ( ) ( )

٧٦- شحيح ( ) ( ) ( ) ( )

٧٧- يشاكلهم ويتشجاجر معهم باستمرار ( ) ( ) ( ) ( )

الحفاظ علي الاصدقاء:

٧٨- يزعج الاطفال الاخرين ( ) ( ) ( ) ( )

٧٩- يريد ان يسيطر علي الامور

ويترأس المجموعة ( ) ( ) ( ) ( )

٨٠- يتكلم ويهرش الاطفال ( ) ( ) ( ) ( )

٨١- دائما يكاوي الاطفال ويسخر منهم ( ) ( ) ( ) ( )

النشاط الزائد:

٨٢- عنده نشاط زايد وحركه كثيره ( ) ( ) ( ) ( )

٨٣- تسهل اثارته ونزق

(لازم يجاب طلبه في الحال) ( ) ( ) ( ) ( )

٨٤- غير منتبه لايستطيع اكمال
الاشياء التي يريدها ( ) ( ) ( ) ( )

المزاج:

٨٥- مزاجه حاد ويثور لاتفه الاسباب ( ) ( ) ( ) ( )
٨٦- يرمي نفسه دائما في
الارض اذا كان زعلان ( ) ( ) ( ) ( )
٨٧- يحطم ويرمي الاشياء داخل البيت ( ) ( ) ( ) ( )
٨٨- مزاجه متقلب ( ) ( ) ( ) ( )

الجنس:

٨٩- يحب ان يمشي عاريا امام الناس ( ) ( ) ( ) ( )
٩٠- يلعب ادوار العريس والعروس
مع الاطفال الاخرين ( ) ( ) ( ) ( )
٩١- يسآل عن عن الفروق الجنسية
بين البنت والولد ( ) ( ) ( ) ( )
٩٢- لايهتم كثيرا سواء كان بنتا او ولدا- ( ) ( ) ( ) ( )
٩٣- لايحب الاختلاط مع الجنس الاخر ( ) ( ) ( ) ( )

متاعب مدرسية:

٩٤- لايهتم بالمذاكرة والمتابعة ( ) ( ) ( ) ( )
٩٥- لايحب المشي للمدرسة ( ) ( ) ( ) ( )
٩٦- يخاف من المشي للمدرسه ( ) ( ) ( ) ( )
٩٧- يتهرب من المشي للمدرسة ( ) ( ) ( ) ( )

٩٨- يطيع اوامر المدرسة	( )	( )	( )	( )
٩٩- لايحب مدرسيه	( )	( )	( )	( )
١٠٠- يخاف من زملاء الفصل	( )	( )	( )	( )
١٠١- المدرسة بعيدة من منزله	( )	( )	( )	( )

الكذب:

١٠٢- ينكر انه فعل اي شئ خطأ	( )	( )	( )	( )
١٠٣- يلوم الآخرين علي اخطائه ويتملص منها	( )	( )	( )	( )
١٠٤- يحكي اشياء ماحصلت	( )	( )	( )	( )
١٠٥- لا يحب ان يتكلم عن اخطاء الاطفال الآخرين	( )	( )	( )	( )

السرقة:

١٠٦- يسرق من والديه	( )	( )	( )	( )
١٠٧- يسرق من المدرسه	( )	( )	( )	( )
١٠٨- يسرق من الدكاكين	( )	( )	( )	( )

اشعال النار:

١٠٩- يحاول يحرق الاشياء او يلعب بالنار	( )	( )	( )	( )

تعذيب الحيوانات وقطع الاشجار:

١١٠- يعذب الحيوانات او الطيور	( )	( )	( )	( )
١١١- يقطع النباتات والزهور	( )	( )	( )	( )

المثابرة:

١١٢- يحب اي شئ يكون معمول ومرتب زي ماهو ( ) ( ) ( ) ( )

١١٣- عنده اشياء يحب يعملها دائما بانتظام في مواعيد محددة ( ) ( ) ( ) ( )

١١٤- يتعلق بتحقيق اشياء او اهداف مايقدر عليها ( ) ( ) ( ) ( )

النظافة:

١١٥- يظل نظيف طول اليوم ( ) ( ) ( ) ( )

١١٦- يلعب بالطين والاوساخ ( ) ( ) ( ) ( )

١١٧- يقطع ملابسه ومايهتم بلبسها جيدا ( ) ( ) ( ) ( )

١١٨- مبهذل وغير مهتم بلبسه ( ) ( ) ( ) ( )

١١٩- يرفض ان يستح بنفسه ( ) ( ) ( ) ( )

التدين:

١٢٠- يحب ان يقرأ او يحفظ آيات من القرآن( ) ( ) ( ) ( )

١٢١- يحب ان يؤدي صلواته ( ) ( ) ( ) ( )

١٢٢- يهتم باستماع القصص الدينية- ( ) ( ) ( ) ( )

العلاقه مع الجدود:

١٢٣- لايحب الجلوس مع جده او جدته ( ) ( ) ( ) ( )

١٢٤- يحب زيارتهم ( ) ( ) ( ) ( )

١٢٥- يحب احاجي حبوبته والقصص البتحكيها ( ) ( ) ( ) ( )

متاعب اضافية:

١٢٦- لايستطيع الانتباه والتركيز	( )	( )	( )	( )
١٢٧- يتحرك كثيرا وباستمرار	( )	( )	( )	( )
١٢٨- لايمكن تركه بمفرده	( )	( )	( )	( )
١٢٩- يحب الصعود في الاشجار والبيوت	( )	( )	( )	( )
١٣٠- يصحي من النوم بدري قبل الناس	( )	( )	( )	( )
١٣١- يجري اثناء الاكل وفمه مليان	( )	( )	( )	( )
١٣٢- طلباته تجاب حالا	( )	( )	( )	( )
١٣٣- لايتحمل المكاواه والمهازره	( )	( )	( )	( )
١٣٤- لايهتم بترتيب كتبه واشياؤه الخاصة	( )	( )	( )	( )
١٣٥- يبكي كثيرا وبسهوله	( )	( )	( )	( )
١٣٦- يقوم بافعال متكررة دائما-				
مثل اطرافه وعيونه	( )	( )	( )	( )
١٣٧- مزاجه يتغير بسهوله	( )	( )	( )	( )
١٣٨- لايحس بالاشياء التي حوله				
ولايهتم بالزمن	( )	( )	( )	( )
١٣٩- يرمي الحجارة في الشارع				
او علي الناس المارين	( )	( )	( )	( )
١٤٠- لايهتم بمشاعر الآخرين	( )	( )	( )	( )

Appendix 3-A

Teacher's Questionnaire

Name of Child : _____ **Date:** _____

Your Name : _____ **Relationship :** _____

I. Instructions : Listed below are items concerning children's behaviour or the problems they sometimes have. Read each item carefully and decide how much you think your child has been bothered by this problem during the past month -

NOT ALL, JUST LITTLE, PRETTY MUCH, or VERY MUCH

Indicate your choice by placing a check mark in the appropriate column to the right of each item.

ANSWER ALL ITEMS.

Classroom behaviour				
1- Fidgeting				
2- Makes unusual noise				
3- Easily frustrated				
4- Poor Muscle co-ordination				
5- Restless				
6- Excitable (irritable)				
7- Inattentive				
8- Fails to complete things he starts				
9- Sensitive to criticism				
10-Too serious or sad				
11-Has fantasies				
12-Has unpleasant face (sullen)				
13-Cries easily				
14-Disturb other children				
15 Quarrelsome				
16-Moody				
17-Pretends to be quiet				
18-Destructive				
19-Steals				
20-Lies				
21-Easily gets angry				
Group participation activities				
22-Isolated				
23-Not liked by other children				
24-Easily influenced and led				
25-Doesn't like playing				
26-Lacks leadership				
27-Uncomfortable with opposite sex				
28-Uncomfortable with same sex				
29-Teases other children				

Attitudes towards power				
30-Submissive				
31-Unable to defend himself				
32-Impudent				
33-Shy				
34-Fearful				
35-Needs more attention from teacher				
36-Stiff-minded (obstinate)				
37-Uneasy to please				
38-Unco-operative				
39-Has truancy				

Appendix 3-B

بسم الله الرحمن الرحيم

استبيان عن سلوك الاطفال بالمدرسة

الاستاذ /الاستاذة المحترمين:

ادناه وصف لسلسة من المظاهر السلوكية التي يمكن ملاحظتها في الاطفال داخل المدرسة؛ بعد كل وصف هناك أربعة خيارات؛ لا؛ لحد ما؛ غالبا؛ كثيرا. الرجاء وضع علامة علي الخيار المناسب الذي يصف سلوك هذا التلميذ.

إسم الطفل:.....

الملاحظات	لا	لحد ما	غالبا	كثيرا
داخل حجرة الدراسة				
١. دائم الحركة	( )	( )	( )	( )
٢. يهمهم و يصدر اصوات مزعجة	( )	( )	( )	( )
٣. حاجاته لابد من الإستجابة اليها بسرعة	( )	( )	( )	( )
٤. التناسق الحركي عنده ضعيف	( )	( )	( )	( )
٥. قلق-غير مستقر علي حال	( )	( )	( )	( )
٦. نزق-تسهل إثارته	( )	( )	( )	( )
٧. غير منتبه-قليل المتابعة	( )	( )	( )	( )
٨. يفشل في إكمال ما بدأه	( )	( )	( )	( )
٩. حساس جدا عند النقد	( )	( )	( )	( )
١٠. حازم جدا-لا يرتاح للمزح والمرح	( )	( )	( )	( )
١١. تنتابه أحلام اليقظة	( )	( )	( )	( )
١٢. يقطب جبينه- صار وجهه	( )	( )	( )	( )
١٣. يبكى دائما بسهولة	( )	( )	( )	( )
١٤. يزعج الاطفال الاخرين	( )	( )	( )	( )
١٥. مشاجر	( )	( )	( )	( )
١٦. يتغير مزاجه بسرعه و بشدة	( )	( )	( )	( )

١٧. يتظاهر بالوداعه	( )	( )	( )	( )	( )
١٨. يحطم الأشياء النافعة أو يخسرها	( )	( )	( )	( )	( )
١٩. يسرق	( )	( )	( )	( )	( )
٢٠. يكذب	( )	( )	( )	( )	( )
٢١. يتغير غضبا و يفعل أشياء غير معتادة	( )	( )	( )	( )	( )

المشاركة في نشاط الجماعة

٢٢. يعزل نفسه عن الأطفال الاخرين	( )	( )	( )	( )	( )
٢٣. يبدو أنه غير مقبول لدي المجموعة	( )	( )	( )	( )	( )
٢٤. تسهل قيادته -تبعيته	( )	( )	( )	( )	( )
٢٥. لا يحس بطعم اللعب	( )	( )	( )	( )	( )
٢٦. يبدو أنه يفتقد صفة القيادة	( )	( )	( )	( )	( )
٢٧. لا يكون مرتاحا مع الجنس الاخر	( )	( )	( )	( )	( )
٢٨. لا يكون مرتاحا مع جنسه	( )	( )	( )	( )	( )
٢٩. يكاوي الأطفال الاخرين	( )	( )	( )	( )	( )

إتجاهه نحو السلطة

٣٠. مستسلم-خاضع	( )	( )	( )	( )	( )
٣١. يستطيع الدفاع عن نفسه	( )	( )	( )	( )	( )
٣٢. قليل حياء-صفيق	( )	( )	( )	( )	( )
٣٣. خجول	( )	( )	( )	( )	( )
٣٤. خواف	( )	( )	( )	( )	( )
٣٥. يتطلب انتباه زائد من مدرسه	( )	( )	( )	( )	( )
٣٦. عنيد-مشاكس	( )	( )	( )	( )	( )
٣٧. يصعب ارضاؤه أو سروره	( )	( )	( )	( )	( )
٣٨. غير متعاون	( )	( )	( )	( )	( )
٣٩. عنده مشكلة غياب بالمدرسة	( )	( )	( )	( )	( )

Appendix 4-A:

A letter to Parents Requesting Co-operation in filling in the Parent Questionnaire

Dear parents

As a member of staff at Gezira University, I am currently researching childhood psychopathology for a PhD at the department of psychology, University of Southampton, UK.

You are kindly requested to participate in this study by completing the questionnaire given to you by my assistant who is ready to help in understanding and filling it. We want some information about your child behaviour and the style of child-care you offered him/her. Also I would be grateful if you could let us know the address of the school in which your child is studying.

The information that you give will be treated in strict confidence

I really appreciate your co-operation with us.

Yours faithfully,

Ahmed Al-Awad

Appendix 4-B

بسم الله الرحمن الرحيم

السادة الآباء والامهات الكرام،

السلام عليكم ورحمة الله وبركاته

في اطار مشروع اكاديمي مسجل بجامعة ساوثامبتون ببريطانيا أقوم بدراسة عن الاضطرابات النفسية لدي الاطفال ومدي ارتباطها بالمؤشرات الاجتماعية والحضارية، وفي هذا السياق نود اختيار بعض المتغيرات ذات الصلة بالمجتمع السوداني، وقد تم اختيار اسرتكم الكريمة للتعاون معنا في هذا الامر وذلك بملء الاستمارة الخاصة بوصف سلوك الاطفال في البيت، وسيقوم أحد أفراد الفريق العامل في البحث بشرح الاستمارة وطريقة ملئها، وقراءتها لكم لتيسير الفهم واعطاء معلومات دقيقة عن الطفل المعني (٦-١٠ سنوات)، وستكون هذه المعلومات في غاية السرية وليس قابلة للنشر أو اطلاع الغير، وسيملأ معلم الصف بمدرسة ابنكم استمارة اخري متعلقة بوصف سلوكه بالمدرسه.

الرجاء اذا كان لديكم اعتراض أو عدم رغبة في المشاركة ابلاغ حامل هذه الرسالة.

ولكم خالص الشكر والعرفان

المخلص

أحمد محمد الحسن العوض

محاضر /جامعة الجزيرة

مدني/السودان

Appendix 5-A

A letter to Headmasters of Schools Requesting Co-operation in filling in the teacher Questionnaire

Dear headmaster

As a member of staff at Gezira University, I am currently researching childhood psychopathology for a PhD at the department of psychology, University of Southampton, UK.

We are asking permission to visit your school for the purpose of completing a questionnaire by the teachers of children whom we select according to a previous home survey. The teacher is kindly requested to participate in this study by completing the questionnaire given to him by my assistant who is ready to help at any stage. We want some information about the pupil's behaviour at school.
The information that you give will be treated in strict confidence.

I really appreciate your co-operation with us.

Yours faithfully,

Ahmed Al-Awad

Appendix 5-B

بسم الله الرحمن الرحيم

السيد مدير مدرسة .....الابتدائية

السلام عليكم ورحمة الله وبركاته

في اطار مشروع اكاديمي مسجل بجامعة ساوثامبتون ببريطانيا أقوم بدراسة عن الاضطرابات النفسية لدي الاطفال ومدي ارتباطها بالمؤشرات الاجتماعية والحضارية، وفي هذا السياق نود اختبار بعض المتغيرات ذات الصلة بالمجتمع السوداني، وقد تم اختيار بعض التلاميذ من مدرستكم العامرة وفقا لمسح سابق اجريناه بالاحياء السكنيه، ولذلك نود تعاونكم معنا بالسماح لأحد أفراد فريق البحث العامل بمقابلة المعلمين لملء استبانة خاصة بسلوك التلاميذ بالمدرسة.

ولكم خالص الشكر والعرفان

المخلص

أحمد محمد الحسن العوض

محاضر /جامعة الجزيرة

مدني/السودان

Appendix 6-A: Contingency Table For Mothers' Levels of Education in the two sub-samples

	Medani	Khartoum	Row %
Primary	42	19	20.3
Secondary	105	120	75.0
Higher	3	11	4.7
Column Total	150	150	300/100%

Appendix 6-B: Contingency Table For Fathers' Levels of Education in the two sub-samples

	Medani	Khartoum	Row %
Primary	32	62	31.3
Secondary	82	82	54.7
Higher	36	6	14.0
Column Total	150	150	300/100%

Appendix 7-A: Contingency Table For Fathers' Occupation in the two sub-samples

	Medani	Khartoum	Row %
Labourers	42	19	20.3
Government Official	105	120	75.0
Professional& Businessman	3	11	4.7
Column Total	150	150	300/100%

Appendix 7-B: Contingency Table For Mothers' Employment in the two sub-samples

	Medani	Khartoum	Row %
Unemployed	119	105	74.7
Employed	31	45	25.3
Column Total	150	150	300/100%

Appendix 8: Contingency Table For Parents' Levels of Religiosity in the two sub-samples

	Medani	Khartoum	Row %
Good	130	118	82.7
Fair	18	31	16.3
Bad	2	1	1.0
Column Total	150	150	300/100%

Appendix 9: Contingency Table For Testing the Association between Fathers' and Mothers' Levels of Education

Mothers / **Fathers**	Primary	Secondary	Higher	Row %
Primary	22	20		14
Secondary	33	131		54.7
Higher	6	74	14	31.3
Column Total	61	225	14	300/100

Appendix 10: Contingency Table For Testing the Association between Fathers' Occupation and Education

Occupation / **Education**	Labourers	Officials	Prof.+Bus	Row %
Primary	24	16	2	14
Secondary	52	39	73	54.7
Higher	5	11	78	31.3
Column Total	81	66	153	300/100

Appendix 11: Contingency Table For Testing the Association between Fathers' Occupation and Mothers' Education

Fathers' Occupation / **Mothers' Education**	Labourers	Officials	Prof.+Bus	Row %
Primary	27	17	17	20.3
Secondary	54	47	124	75.0
Higher		2	12	4.7
Column Total	81	66	153	300/100

Appendix 12: Contingency Table For Testing the Association between Mothers' Employment and Education

Employment / **Education**	Unemployed	Employed	Row %
Primary	60	1	20.3
Secondary	160	65	75.0
Higher	4	10	4.7
Column Total	224	76	300/100

Appendix 13: Contingency Table For Testing the Association between Mothers' Employment and Fathers' Occupation

M. Employment / **F. Occupation**	Unemployed	Employed	Row %
Labourers	71	10	27.0
Officials	54	12	22.0
Prof.& Bus.	99	54	51.0
Column Total	224	76	300/100

Appendix 14: Contingency Table For Testing the Association between Mothers' Employment and Fathers' Education

M. Employment / **F. Education**	Unemployed	Employed	Row %
Primary	39	3	14.0
Secondary	129	35	54.7
Higher	56	38	31.3
Column Total	224	76	300/100

Appendix 15: Contingency Table For Testing the Association between Parents' Religiosity and Fathers' Levels of Education

P. Religiosity / **F. Education**	Good	Fair	Bad	Row %
Primary	34	7	1	14
Secondary	132	30	2	54.7
Higher	82	12	14	31.3
Column Total	61	225	14	300/100

Appendix 16: Contingency Table For Testing the Association between Parents' Religiosity and Fathers' Occupation

P. Religiosity / **F. Occupation**	Good	Fair	Bad	Row %
Labourers	69	12		27.0
Officials	48	15	3	22.0
Prof.& Bus.	131	22		51.0
Column Total	248	49	3	300/100

Appendix 17: Contingency Table For Testing the Association between Parents' Religiosity and Choice of Child's feeding

P. Religiosity	Good	Fair	Bad	Row %
Breast-fed	217	46	2	88.3
Bottle-fed	31	3	1	11.7
Column Total	248	49	3	300/100

Appendix 18: Contingency Table For Testing the Association between Gender and Breast-feeding

Sex	Girls	Boys	Row %
Breast-fed	131	134	88.3
Bottle-fed	17	18	11.7
Column Total	61	225	300/100